

8th Convocation Report 2020



भारतीय प्रौद्योगिकी संस्थान इन्दौर
Indian Institute of Technology Indore

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Director's Message



As IIT Indore steps into the next decade, it carries forward the culture of excellence and hard work embedded in its social environment. It maintains a high national rank among the institutions of higher education and is now among the top 10 engineering institutes in the country. Over the last eight years, our graduating students have been engaged with the best corporations, in India and worldwide, across different verticals. Many have also chosen the less travelled path of entrepreneurship. It is indeed a proud moment for us when our students contribute to the society by creating jobs and changing lives. Our faculty colleagues, along with their researchers in the last one decade, have also shown immense perseverance to attain new heights of excellence. The teaching and research climate in the institute has been supported by efficient administration.

2020 is no ordinary year – the normal has been redefined worldwide in a way that has posed major challenges for the education sector. The IIT Indore community has responded by innovating in all the domains, across teaching, research, and administration. The institute used asynchronous as well as synchronous modes of teaching, successfully completed the Spring semester in a timely manner, and continued with academic activities. The research on much needed COVID-19 related projects also continued unabated during the lockdown. We initiated the return of researchers to the campus, with all the due precautions for everyone's safety, to restart the laboratories. Even during such trying times, our infrastructure team continued the hard work and did not allow any compromise on the high standards the institute has set for itself.

Having been granted its first patent, the institute has renewed its focus on patenting along with publishing. The key focus is to engage with MSMEs, start-ups and transfer technology. Efforts are also underway towards liaison and collaboration with grassroot-level organizations, to contribute to the development of our immediate neighbourhood through technological innovation.

This year, IIT Indore will award 233 B.Tech, 57 M.Tech, 58 MSc. 2 M.S. (Research) and 58 PhD. degrees.

I, on behalf of the Institute, congratulate all our graduates and wish them success in the future.

Prof. N. K. Jain

Officiating Director, IIT Indore

Board of Governors, IIT Indore



Chairman

Professor Deepak B. Phatak
Indian Institute of Technology Indore

Members

Professor Neelesh Kumar Jain
Director (Officiating), Indian Institute of Technology Indore

Shri Rakesh Ranjan
Additional Secretary (TE), Govt. of India
Ministry of Education (Shiksha Mantralaya)

Smt Caralyn Khongwar Deshmukh
Principal Secretary
Department of Technical Education & Skill Development,
Govt. of Madhya Pradesh

Professor Yogesh M. Joshi
Department of Chemical Engineering,
IIT Kanpur

Professor Dhananjay V. Bhatt
Professor & Chairman CCE, Former Dean [AI & RG], Department of Mechanical Engineering
S. V. National Institute of Technology, Ichchhanath, Surat

Shri Manoj Kohli
Executive Chairman
SB Energy (Soft Bank Group) New Delhi

Professor Anand Parey (Senate Nominee)
Dean, Resources Generation, IIT Indore

Professor Krushna R. Mavani (Senate Nominee)
Head, Discipline of Physics
IIT Indore

Mr. S.P. Hota
Registrar I/c & Secretary to BoG, IIT Indore

Institute Functionaries



Director, IIT Indore
Professor Pradeep Mathur
(till December 31, 2019)



Director (Officiating), IIT Indore
Professor Neelesh Kumar Jain
(w.e.f. January 1, 2020)



Dean, Academic Affairs
Professor Vimal Bhatia
(till December 31, 2019)



Dean, Administration
Dr. Swadesh Kumar Sahoo
(till December 31, 2019)



Dean, Academic Affairs
Dr. Devendra Deshmukh
(w.e.f. January 1, 2020)



Dean, Administration
Dr. Pritee Sharma
(w.e.f. January 1, 2020)



Dean, Research & Development
Professor Abhinav Kranti
(till February 10, 2020)



Dean, Infrastructure Development
Dr. Parasharam M. Shirage
(till December 31, 2019)



Dean, Research & Development

Dr. I.A. Palani
(w.e.f. February 11, 2020)



Dean, Infrastructure Development

Professor Sandeep Chaudhary
(w.e.f. January 1, 2020 to June 14, 2020)



Dean, Infrastructure Development

Dr. Manish Kumar Goyal
(w.e.f. June 15, 2020)



Dean, Student Affairs

Dr. Santosh Kumar Vishvakarma



Dean, International Affairs

Dr. Kapil Ahuja



Dean, Resources Generation

Professor Anand Parey



Dean, Faculty Affairs

Professor Subhendu Rakshit
(till February 19, 2020)



Registrar I/c, IIT Indore

Mr. S. P. Hota



Acting Dean, Faculty Affairs

Dr. Amod C. Umarikar
(w.e.f. February 20, 2020)

Academic Affairs

Academic Affairs	:	Dr. Shibal Mukherjee (till December 31, 2019)
Academic Affairs (Academic Infrastructure)	:	Dr. Abhishek Srivastava (till February 23, 2020)
Academic Affairs (Academic Infrastructure)	:	Dr. Antony Vijesh (w.e.f. February 24, 2020)
Academic Affairs (PG & PhD Programs)	:	Dr. Amod C. Umarikar (till February 19, 2020)
Academic Affairs (PG & PhD Programs)	:	Dr. Abhishek Srivastava (till June 30, 2020)
Academic Affairs (PG & PhD Programs)	:	Dr. Eswara Prasad Korimilli (w.e.f. July 1, 2020)
Academic Affairs (UG Programs)	:	Professor Ram Bilas Pachori
Infrastructure Development - I	:	Dr. Manish Kumar Goyal (till June 14, 2020)
Infrastructure Development - III	:	Dr. Guru Prakash (till June 14, 2020)
Infrastructure Development - I	:	Dr. Guru Prakash (w.e.f. June 15, 2020)
Infrastructure Development - II	:	Dr. Srivathsan Vasudevan
Student Affairs	:	Dr. Ajay Kumar Kushwaha
Research and Development - I	:	Dr. Bhupesh Kumar Lad (till July 2, 2020)
Research and Development - I	:	Dr. Ruchi Sharma (w.e.f. July 3, 2020)
Research and Development - II	:	Dr. Bhargav Vaidya
Faculty Affairs	:	Dr. Amod C. Umarikar
Administration	:	Dr. Somnath Dey (till September 29, 2020)
Administration	:	Dr. Santosh Hosmani (w.e.f. October 3, 2020)

Heads of School

Humanities and Social Sciences	:	Dr. Sanjaram Premjit Khanganba (till January 3, 2020)
Humanities and Social Sciences	:	Dr. Nirmala Menon (w.e.f. January 4, 2020)

Heads of Departments

Computer Science & Engineering	:	Dr. Surya Prakash (till October 2, 2020)
Computer Science & Engineering	:	Dr. Somnath Dey (w.e.f. October 3, 2020)
Electrical Engineering	:	Dr. Vipul Singh
Mechanical Engineering	:	Dr. I. A. Palani (till February 10, 2020)
Mechanical Engineering	:	Dr. Santosh K. Sahu (w.e.f. February 11, 2020)
Chemistry	:	Dr. Amrendra Kumar Singh (till January 7, 2020)
Chemistry	:	Dr. Biswarup Pathak (w.e.f. January 8, 2020)
Mathematics	:	Dr. Md. Aquil Khan
Physics	:	Professor Krushna R. Mavani
Astronomy, Astrophysics and Space Engineering	:	Dr. Abhirup Datta
Biosciences and Biomedical Engineering	:	Dr. Hem Chandra Jha (till February 23, 2020)
Biosciences and Biomedical Engineering	:	Dr. Sharad Gupta (w.e.f. February 24, 2020)
Metallurgy Engineering and Materials Science	:	Dr. Parasharam M. Shirage (till January 12, 2020)
Metallurgy Engineering and Materials Science	:	Dr. Vinod Kumar (w.e.f. January 13, 2020)
Civil Engineering	:	Dr. Neelima Satyam D

Heads of Centers and Services

Center of Advanced Electronics	:	Dr. Mukesh Kumar
Computer and Information Technology Center	:	Dr. Neminath Hubballi
Center of Futuristic Defense and Space Technology (CFDST)	:	Dr. Santosh K. Vishvakarma
Center of Innovation, Incubation, Entrepreneurship and Industry Relations (CIIEIR)	:	Dr. Swaminathan R.
Centre for Rural Development and Technology	:	Professor Sandeep Chaudhary
DST-FIST Center of Excellence in Gear Engineering	:	Professor Neelesh Kumar Jain
Sophisticated Instrument Centre (SIC)	:	Professor Suman Mukhopadhyay
Counselling Services	:	Dr. Pavan K. Kankar
Training & Placement	:	Dr. Abhishek Rajput
Central Workshop	:	Dr. Yuvraj Kumar Madhukar

Constitution of Senate

Professor Neelesh Kumar Jain

Director (Officiating), IIT Indore and Chairman, Senate

External Experts (till July 20, 2020)

Dr. M.K. Surappa

Vice Chancellor
Anna University Chennai 600 025

Dr. R. Balasubramanian

Department of Mathematics,
Institute of Mathematical Sciences Chennai

Professor Sudhir Chella Rajan

Humanities and Social Sciences
Coordinator (Land-Use)
Indo-German Centre for Sustainability
Indian Institute of Technology Madras Chennai 600036

Professor R. Narasimhan

Professor, Department of Mechanical Engineering
Indian Institute of Science Bangalore, 560 002

External Experts (w.e.f. August 11, 2020)

Professor Himanshu Rai

Director,
Indian Institute of Management Indore
Prabandh Shikhar, Rau-Pithampur Road
Indore - 453556, M.P. India

Shri Debashis Das

Director,
Raja Ramanna Centre for Advanced Technology (RRCAT)
Indore - 452013, M.P. (India)

Mr. B Anil Baliga

Executive Vice President,
VE Commercial Vehicles Ltd.
78-86, Industrial Area No. III, A. B. Rd., Dewas,
Madhya Pradesh, 455001, India

Professor Abhiram G. Ranade

Professor
Department of Computer Science and Engineering
Indian Institute of Technology Bombay,
Powai, Mumbai 400076, India

Professor Ajay Kumar Jain

Professor (Organization Behaviour)
Dean, Executive Graduate Programs & Consultancy,
Management Development Institute
Mehrauli Road, Sukhrali,
Gurgaon - 122 007 India

Deans**Dr. Devendra Deshmukh**

Dean, Academic Affairs,
Associate Professor, Mechanical Engineering

Dr. Pritee Sharma

Dean, Administration,
Associate Professor, School of Humanities and Social Sciences

Dr. Kapil Ahuja

Dean, International Affairs,
Associate Professor, Computer Science and Engineering

Dr. Manish Kumar Goyal

Dean, Infrastructure Development
Associate Professor, Civil Engineering

Dr. I.A. Palani

Dean, Research and Development,
Associate Professor, Mechanical Engineering

Dr. Santosh Kumar Vishvakarma

Dean, Student Affairs,
Associate Professor, Electrical Engineering

Professor Anand Parey

Dean, Resources Generation,
Professor, Mechanical Engineering

Heads of Departments**Dr. Neelima Satyam D**

HOD, Civil Engineering,
Associate Professor, Civil Engineering

Dr. Somnath Dey

HOD, Computer Science and Engineering,
Assistant Professor, Computer Science and Engineering

Dr. Vipul Singh

HOD, Electrical Engineering,
Associate Professor, Electrical Engineering

Dr. Santosh K. Sahu

HOD, Mechanical Engineering,
Associate Professor, Mechanical Engineering

Dr. Vinod Kumar

HOD, Metallurgy Engineering and Material Science
(MEMS)
Assistant Professor, MEMS

Dr. Sharad Gupta

HOD, Biosciences and Biomedical Engineering (BSBE)
Associate Professor, BSBE

Dr. Biswarup Pathak

HOD, Chemistry, Associate Professor, Chemistry

Dr. Md. Aquil Khan

HOD, Mathematics, Associate Professor, Mathematics

Professor Krushna R. Mavani

HOD, Physics, Professor, Physics

Dr. Abhirup Datta

HOD, Discipline of Astronomy,
Astrophysics and Space Engineering (DAASE),
Associate Professor, DAASE

Dr. Nirmala Menon

HOD, School of Humanities and Social Sciences
(SHSS)
Associate Professor, SHSS

Heads of Centers and Services**Dr. Mukesh Kumar**

Head, Center of Advanced Electronics
Associate Professor, Electrical Engineering

Dr. Neminath Hubbali

Head, Computer and Information Technology Center
Associate Professor,
Computer Science and Engineering

Dr. Santosh Kumar Vishwakarma

Head,
Center for Futuristic Space and Defense Technologies
Associate Professor, Electrical Engineering

Professor Sandeep Chaudhary

Head, Center for Rural Development and Technology
Professor, Civil Engineering

Professor Suman Mukhopadhyay

Head, Sophisticated Instrumentation Center
Professor, Chemistry

Dr. Pavan Kumar Kankar

Head, Counselling Services
Associate Professor, Mechanical Engineering

Dr. Abhishek Rajput

Head, Training and Placement
Assistant Professor, Civil Engineering

Professors

Professor Narendra S. Choudhary

Computer Science and Engineering

Professor Neelesh Kumar Jain

Professor Anand Parey
Mechanical Engineering

Professor Ram Bilas Pachori

Professor Abhinav Kranti

Professor Vimal Bhatia

Electrical Engineering

Professor Rajneesh Misra

Professor Suman Mukhopadhyay
Chemistry

Professor Subhendu Rakshit

Professor Krushna R. Mavani
Professor Sarika Jalan
Physics

Professor Sandeep Chaudhary

Civil Engineering

Professor Avinash Sonawane

Biosciences and Biomedical Engineering

Professor G. S. Murthy

Convener, Biosciences and Biomedical Engineering,
Learning Resource Center Committee

Other Authorities

Chief Warden

Dr. Lalit Borana (w.e.f. January 3, 2020)

Assistant Professor, Civil Engineering

Convener, Health Center Committee

Dr. Hemant Borkar (w.e.f. February 3, 2020)

Assistant Professor,
Metallurgy Engineering and Materials Science

Deputy Librarian

Dr. Anjali Bandiwadkar

Deputy General Manager, Central Workshop

Dr. Anand Petare

Alumni Representative

(for non-evaluation item only)

Mr. Jwalant Shah

Student Representatives

(for non-evaluation item only)

General Secretary, Student Gymkhana

Mr. Shreyansh Jai

Academic Secretary, Student Gymkhana

Mr. Jogesh Kumar Mukala

Secretary

Mr. S. P. Hota

Registrar I/c, IIT Indore

Indian Institute of Technology Indore
8th Convocation 2020:
Recipients of Medals and Awards

President of India Gold Medal

For the best academic performance among all the graduating students



Mr. Saptarshi Ghosh
BTech (CSE)
Roll No. 160002052

Institute Silver Medal

For the best academic performance among all the graduating UG students
of a particular Discipline



Ms. Arushi Jain
BTech (CSE)
Roll No. 160001008



Ms. Khushboo Ahuja
BTech (EE)
Roll No. 160002024



Mr. Agam Gupta
BTech (ME)
Roll No. 160003005



Mr. Shalay Gupta
BTech (CE)
Roll No. 160004033



Mr. Ashutosh Gupta
BTech (MEMS)
Roll No. 160005008

Institute Silver Medal

For the best overall performance among all the graduating PG students (MTech./MS and MSc. Programs)



Mr. Manish Badole
M.Tech (MEMS)
Roll No. 1802105012



Mr. Anchal Saxena
MSc (Astronomy)
Roll No. 1803121001

Award For Best B.Tech Project (BTP)

Amongst all the graduating UG students



Mr. Mehta Chaitanya Mukeshkumar
BTech (ME)
Roll No. 160003028

Project Title: "Design and Development of a Tree Climbing Quadruped Robot"

Buti Foundation Gold Medal

For the best academic performance among all the graduating female PG students



Ms. Srija Tewari
MSc (Chemistry)
Roll No. 1803131023

Achievements, Awards, Recognitions and Editorships

Discipline of Computer Science and Engineering

The Discipline of Computer Science and Engineering (CSE) was set up in July 2009. It offers B.Tech and PhD. programmes. The Discipline adopts a modern approach to teaching wherein students have adequate academic freedom to innovate and learn. State-of-the-art facilities including the latest software and advanced hardware are available in various laboratories for the use in both teaching and research. This facilitates adequate implementation of major B.Tech projects as well as for the verification and validation of research results. CSE faculty members have active collaborations with established institutes across the globe (France, Germany, Singapore, Canada, USA etc.).

Achievements, Awards, Recognitions and Editorships

- In THE World University Rankings 2020, Indian Institute of Technology Indore ranked 251-300 in Computer Science.
- Poster of **Mr. Pramod C. Mane**, Dr. Nagarajan Krishnamurthy, and Dr. Kapil Ahuja won the 2nd prize at Intl. Conf. on Game Theory and Networks, Assam, Sept. 2019.
- **Dr. Kapil Ahuja** organized a mini-symposium at 11th Preconditioning Conference in Univ. of Minnesota, Minneapolis, USA, July 2019.
- The research group of **Dr. Gourinath Banda** has demonstrated the application of state-of-the-art simulator's in developing OEDR module for autonomous vehicles. The development team consisted of Mr. Souvik M and Mr. Nikhil TV and was supervised by Dr. Gourinath Banda. This work received support from the German company IPG in the form of extended license to their state-of-the-art simulator called "IPG CarMaker". This product is a first of its kind at TRL 3 selected for showcasing on IPG from academia towards their "Apply & Innovate – TECH WEEKS 2020".
- **Dr. Gourinath Banda has signed an MoU** with the company, DFPL, which is a startup that is building an ecosystem for efficient farming by deploying the state-of-the-art technologies such as IoT frameworks and data streams. This MoU has resulted in sponsorship for a Bachelor's dissertation project of 2019-2020 final year student **Mr. Raghav Mahajan**.
- **Samsung Innovation Award 2019:** A project entitled "Fingerprint Spoof Buster" of Ram Prakash, Ashwini Jha, and Ashutosh Anshul, which was mentored by Dr. Somnath Dey received Merit Award in November 2019.
- **Dr. Somnath Dey** was in the Technical Programme Committee member of 7th International Conference on Mining Intelligence & Knowledge Exploration (MIKE 2019) organized from December 19-22, 2019 at NIT Goa, India
- **Dr. Somnath Dey** was in the Technical Programme Committee member of 8th International Conference on Pattern Recognition and Machine Intelligence (PReMI 2019) organized from December 17-20, 2019 by Tezpur University in collaboration with Machine Intelligence Unit, ISI Kolkata and Department of EEE, IIT Guwahati at Tezpur University, India
- **Dr. Somnath Dey** was in the Technical Programme Committee member of IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS 2019) organized from December 16-19, 2019 at Goa, India
- **Dr. Somnath Dey** was in the Technical Programme Committee member of International Conference

on Machine Intelligence and Data Science Applications (MIDAS 2020) organized from September 4-5, 2020 at University of Petroleum and Energy Studies, Dehradun, India,

- **Dr. Somnath Dey** was in the Technical Programme Committee member of International Conference named International Conference on Future Communication & Computing Technology (ICFCCT-2020) organized from March 13-14, 2020 at Guntur, India.
- **Dr. Puneet Gupta** was in the Technical Program Committee of UPCON 2019 organized from November 8-10, 2019 jointly by Aligarh Muslim University, Ohio State University and National Power Training Institute at Aligarh, India.
- **Dr. Neminath Hubballi** received DUO India fellowship to visit City University of London for collaborative work
- **Dr. Neminath Hubballi** visited Norwegian University of Science and Technology from May 2019 to June 2019 as a visiting professor.
- **Dr. Bodhisatwa Mazumdar** nominated as the Working Group Member (WGM) for IEEE Standard 1413.1 (reliability Prediction Working Group) and IEEE 1624 (IEEE Standard for Organizational Reliability).
- **Dr. Surya Prakash** was in the Organizing Committee of 2020 International Conference on Artificial Intelligence and Embedded Systems (ICAIES 2020) organized from February 13-15, 2020 at Hyderabad, Telangana.
- **Dr. Surya Prakash** was in the National Advisory Committee of 2020 International Conference on Automation, Signal Processing, Instrumentation and Control (i-CASIC 2020) organized from February 27-28, 2020 at VIT Vellore, Tamilnadu.
- **Dr. Surya Prakash** was in the Technical Program Committee of UPCON 2019 organized from November 8-10, 2019 jointly by Aligarh Muslim University, Ohio State University and National Power Training Institute at Aligarh, India.
- **Dr. Anirban Sengupta** became Ex-Officio Member, IEEE Consumer Electronics Society Board of Governors, 2020
- **Dr. Anirban Sengupta** has received ACM Honor. He was selected to feature in 'Researcher Spotlight' of prestigious ACM SIGDA (Special Interest Group on Design Automation) Newsletter by Intel for the Jan 2020 issue for his contributions on "Hardware Security".
- **Dr. Anirban Sengupta** has been awarded 'IEEE Chester Sall Memorial Consumer Electronics Award - in Jan 2020 for outstanding contribution on "DSP Design Protection in CE through Algorithmic Transformation Based Structural Obfuscation".
- **Dr. Aruna Tiwari** participated in Machine Learning/Artificial Intelligence track of the 33rd International Conference on Design (VLSID) 2020 as Distinguished Person. The conference was organized in Bangalore, India from January 04-08, 2020.
- **Dr. Aruna Tiwari** conducted a special Session on "Evolutionary Algorithms and Applications" in the 9th International Conference on Soft Computing for Problem Solving (SocProS) 2019. The conference was organized in Liverpool Hope University, Liverpool, UK from September 02-03, 2019.
- **Dr. Aruna Tiwari** delivered an invited talk on "Optimization of Hybrid Soft Computing Model with Evolutionary Approach and their Applications" in the 9th International Conference on Soft Computing for Problem Solving (SocProS) 2019. The conference was organized in Liverpool Hope University, Liverpool, UK from September 02-03, 2019.

- **Dr. Aruna Tiwari** visited Dr. Stephen. L. Smith (Graduate Admissions Tutor, Department of Electronics, University of York, UK) for a research collaboration on "Cancer Disease Diagnosis using Soft Computing Algorithm" during September 04-06, 2019.
- **Dr. Aruna Tiwari** was appointed as an examiner for a master thesis of University of York UK, PhD. She also evaluated and participated in the defense as an external examiner for a total of three theses of various IITs and NITs.
- **Dr. Aruna Tiwari** has been appointed as an Institute level Nodal Officer (Jan 2020) for the Ministry of Electronics and Information Technology (MeitY) for three years.

Discipline of Civil Engineering

The B.Tech programme in Civil Engineering began in 2016-17 and the PhD. programme began in 2017-18. Regular discussions take place with industry professionals and other concerned stakeholders for the identification of high need industrial challenges. Research problems are identified by integrating their needs with the approach for sustainable development. To utilize the expertise of other researchers collaborative works are undertaken as practice. As a part of disseminating information and further improvement of collaborative efforts, courses/seminars are also organized.

Achievements, Awards, Recognitions and Editorships

Dr. Neelima Satyam is the Editor of Special issue on "Landslide: Forecasting, Assessment and Mitigation", Indian Geotechnical Journal, Springer 2020

Dr. Neelima Satyam is the Executive member (Elected), Indian Society of Engineering Geology (Indian National group of the International Association for Engineering Geology and Environment) for the term 2020-2021

Dr. Neelima Satyam is the Member, Technical committee 220 (Field Monitoring in Geomechanics) of International Society of Soil Mechanics and Geotechnical Engineering (2019- till date)

Dr. Neelima Satyam is the Convener, Soil Dynamics and Earthquake Geotechnical Engineering -36 International Geological Congress 2020

Dr. Neelima Satyam is the Convener, International Cooperation by Indian Geotechnical Society for the term 2019-2020

Dr. Neelima Satyam is the Executive Council member (Elected), Indian society of Engineering Geology for the term 2020-2021

Dr. Neelima Satyam is the Honorable Director, Institute and Industry Interaction: Professional Development Council, Association of Consulting Civil Engineers, India (2018-till date)

Prof. Sandeep Chaudhary Chaired Standing Committee 1 of Asian Concrete Federation

Prof. Sandeep Chaudhary is the Core member of NDMA, GoI for Development of detailed outline for Resource Material on Earthquake Engineering

Prof. Sandeep Chaudhary is the International Steering Committee member of "The 9th Asia-Pacific Young Researcher Graduate Symposium 2019" held at Tongji University, Shanghai, China from December 19-20, 2019.

Prof. Sandeep Chaudhary was Scientific Committee member of "3rd ACF Symposium on Assessment and Intervention of Existing Structures" held at Hokkaido University, Sapporo, Japan from September 10-September 11, 2019

Prof. Sandeep Chaudhary was appointed Convener of "Panel for Preparing Roadmap, SSD 06/P1", by Bureau of Indian Standards, New Delhi.

Dr. Munir Ahmed Nayak is Editorial Board Member as Review Editor, *Frontiers in Water*, 2019–Present

Dr. Munir Ahmed Nayak is the Guest Associate Editor, *Frontiers in Water*, 2020

Dr. Lalit Borana is the Guest Editor for “International Journal of Distributed network sensors” by Sage Publishers (UK).

Mohd. Farooq Azam received the IRD (institute for research and development), France award for one month visiting professor at University of Grenoble, France.

Dr. Manish Kumar Goyal was awarded American Society of Civil Engineers (ASCE’s)-Visiting International Fellowship 2019.

Dr. Manish Kumar Goyal received Prof R J Garde Research Award 2019

Discipline of Biosciences and Biomedical Engineering

The discipline of Biosciences and Biomedical Engineering (BSBE) was initiated in 2012, with a vision of establishing a Centre of Excellence that will focus on human resource development and research in relevant areas. It has separate biohazard, chemical and glassware disposal systems and follows good laboratory practices (GLP) undertaken in each lab depending on the kind of research.

Achievements, Awards, Recognitions and Editorships

Dr. Hem Chandra Jha is the Associate Editor in *Frontiers in Microbiology*

Dr. Mirza S. Baig received the Lady Davis International Professorship, Technion-Israel Institute of Technology, Israel (2020)

Dr. Mirza S. Baig received ASM-IUSSTF Indo-US Professorship, University of California, USA (2020)

Dr. Mirza S. Baig received International Visiting Professorship, Bio-Medico University of Rome, Italy (2020)

Dr. Mirza S. Baig received INSA Visiting Scientist Fellowship, SMS Medical College, India (2020)

Dr. Mirza S. Baig was Visiting Professor at Technical University Munich (TUM), Germany (2019), Cambridge University, U.K. (2019) and the Institute of Microbial Chemistry (IMC), Tokyo, Japan (2019)

Mathematics

The Mathematics discipline came into existence in 2009. At present, it offers MSc. and PhD. programmes in Mathematics. It promotes Mathematics among Under Graduate students in India through Madhava Mathematics Competition, organizes lectures by eminent mathematicians from reputed institutes around the world such as Ohio University (USA), Tohoku University (Japan), Shantou University (Republic of China), Sapienza University of Rome, etc., actively collaborates with various institutes across the globe (Finland, China, France, Germany, Singapore, Canada, USA etc.) and has conducted various academic events including two International Symposia, five GIAN programs, two MTTS programs, three international conferences, two TEQIP Short Term Courses, one CEP program and one joint seminar by IIT Indore-Russia-ISI Chennai Centre on Complex Analysis.

Achievements, Awards, Recognitions and Editorships

Dr. M. Tanveer was awarded a Visiting Professorship to NTUST, Taiwan.

Dr. M. Tanveer is serving as a Guest Editor (Associate Editor) of Special Issue on "Robust Data Analysis and Its Applications" in Annals of Operations Research, Springer.

Dr. M. Tanveer is serving as an Associate Editor of IEEE SMC 2020.

Dr. M. Tanveer is serving as a Guest Editor (Associate Editor) of Special Issue on "Randomization-Based Deep and Shallow Learning Algorithms" in Applied Soft Computing, Elsevier.

Dr. M. Tanveer is serving as a Guest Editor (Associate Editor) of Special Issue on "Artificial intelligence and deep learning for biomedical applications" in Multimedia Tools and Applications, Springer.

Dr. M. Tanveer is serving as a Lead guest Editor (Associate Editor) of Special Issue on "Advanced machine learning algorithms for biomedical data and imaging" in Multimedia Tools and Applications, Springer.

Dr. M. Tanveer is serving as a Lead guest Editor (Associate Editor) of Special Issue on "Advances of machine learning in data analytics and visual information" in Multimedia Tools and Applications, Springer.

Dr. M. Tanveer is serving as a Lead guest Editor (Associate Editor) of Special Issue on "Computational Intelligence for Biomedical Data and Imaging" in ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM).

Dr. M. Tanveer is on the Editorial Review Board Member: Applied Intelligence, Springer.

Dr. M. Tanveer is the Section Editor: Smart Science and Taylor Francis (Scopus and ESCI indexed).

School of Humanities & Social Sciences

The School of Humanities and Social Sciences began in 2009 and consists of six disciplines: English, Economics, Philosophy, Psychology, Sociology and History. It is a multi-disciplinary establishment fostering a diversity of knowledge systems. In addition to courses for the B.Tech programme, the School also offers a PhD. programme. It organizes various talks including distinguished talks on various topics relevant to our social and political situations and provides for student internships. Its objective is to strongly promote cross-disciplinary research projects. It also encourages B.Tech students of the Institute to execute their BTPs with support from faculty members from the school in order to provide strong emphasis on executing socially relevant projects. Students are provided with the much-needed experiences that enable them to face the opportunities and challenges of today's changing world. The School organized multidisciplinary conference 'Beyond Borders' with the perspective of thinking in dialogic, transactional and transgressive ways across disparate borders: geographic, sociological, anthropological, cultural, economic, political, philosophical, psychoanalytic and linguistic. The school has received funding from international and national agencies to undertake research work, conducted GIAN courses and organized courses under CEP.

Achievements, Awards, Recognitions and Editorships

1. **Dr. Ananya Ghoshal** has been invited for the Conference Presentation held at the University of Chicago, Illinois campus during November 2019 and given talks in Baroda and IPS Academy, Indore in December 2019.
2. **Dr. Nirmala Menon** has been an Invited by ADHO as a Panelist on Indian Digital Humanities Towards

a Decolonial/Postcolonial Indian Digital Humanities. July 10th 2020 (conducted online). She was also an Invited Scholar for Academia Europaea's Invited Public Talk series at Wroclow University, Poland and as Plenary Speaker at Big Data in Culture, Design and Heritage Workshop, Singapore. She was awarded ASEM-DUO India Student Fellowship Award 2020 at Lancaster University, Lancaster, United Kingdom, 2020.

3. **Dr. Ruchi Sharma** Received "Best Teacher Award" for large class at IIT Indore in January 2020.
4. **Dr. Ruchi Sharma** is a Member of the Drafting Committee for Science, Technology, and Innovation Policy (STIP 2020), DST, GoI.

Department of Physics

Discipline of Physics was established in July 2009 at the time of inception of IIT Indore. The discipline has shown expansion in every aspect including number of students, faculty members, research projects and research facilities year by year. In the present era, when research and education has become an utmost important aspect of the progressive life and culture, the discipline has developed very advanced research facilities to train and educate students with a blend of basic knowledge. With the advanced PG courses and training, the discipline targets to enhance the perception of students in education and research.

Achievements, Awards, Recognitions and Editorships

Dr. Sarika Jalan organized Mini-symposium "Complex Networks" at CNSD 2019, December 2019, IIT Kanpur.

Dr. Sarika Jalan gave Invited talk in the 4th International Conference on Computational Intelligence and Networks (CINE 2020), 27-29 February 2020 held at ISI Kolkata.

Dr. Sarika Jalan was the invited speaker at WE-Heraeus-Seminar on Quantization of Dissipative Chaos: Ideas and Means 16 - 20 December 2019 at the Physikzentrum Bad Honnef, Germany

Dr. Sarika Jalan gave invited talk at CNSD 2019, 11-16 December 2019, held at IIT Kanpur

Dr. Sarika Jalan was the invited speaker, International conference on complex systems CSS 2019, September 30-October 04, 2019, held at NTU Singapore

Dr. Sarika Jalan was the invited speaker at minisymposium on Bio Networks organized at PhysCon 2019, 08-11 September, Kazan Russia.

Dr. Rajesh Kumar gave demonstration in outreach activity on Science Day-2020.

Dr. Somaditya Sen delivered Invited Public Lecture on "Importance of Higher Education in Science and Technology in India"

Dr. Raghunath Sahoo was Member, National Organizing Committee, DAE-BRNS Symposium on Nuclear Physics, Lucknow University, Lucknow, Dec. 23-27, 2019.

Dr. Sudip Chakraborty organized PAN-IIT (Indore, Bombay, Delhi, Kharagpur) Webinar Series on Materials Simulation: A Virtual Guided Tour (21st - 31st May, 2020) <https://sites.google.com/view/msgtwebinar/>

Department of Chemistry

Chemistry is considered as “Central Science” as it bridges all sciences and applied fields via molecular world. Since the establishment of the Discipline of Chemistry in 2009 at IIT Indore, the faculty members and the students have worked relentlessly to establish a Discipline of Excellence for high-end academic and research activities in Chemical Sciences. Keeping the immense contribution of chemistry in solving the global problem in Energy, Environment and Healthcare, we at the Discipline of Chemistry focus on research activities on various fundamental and applied research areas in Chemical Sciences. The development of state-of-the-art facilities for research activities has been a continuous pursuit. The discipline focuses on the pursuit of innovation in education and research maintaining high professional standards, promoting a diverse and inclusive environment. Along with the promotion of personal growth and development of career of faculty and staff, the Discipline is constantly promoting outreach contribution of the campus, community, and popularises Chemistry in the young minds.

Achievements, Awards, Recognitions and Editorships

Dr. Apurba Kumar Das organized “International 3D Bioprinting Research Symposium” at University College London, London, UK on November 22, 2019 (Role: Convener, Organizing Committee).

Dr. Biswarup Pathak received DUO-India Professor Fellowship Award, 2020.

Dr. Biswarup Pathak featured in Journal of Physical Chemistry Young Scientist Special Issue, 2019

Dr. Biswarup Pathak received SPARC Research Grant Awards, MHRD, India, 2019

Dr. Sanjay Kumar Singh was Organising Committee Convener, National Science Day, Feb. 28, 2020 (Organising Committee Convener)

Dr. Satya S. Bulusu’s research group member received Best Poster Presentation award in “Theoretical Chemistry Symposium”, organized by Birla Institute of Technology and Science, PILANI. The title of the Poster presented, “A transferable artificial neural network model for atomic forces in nanoparticles”.

Dr. Apurba Kumar Das received 2020 International Research Fellowship by Kyoto University, Japan.

Overseas Visiting Doctoral Fellowship (OVDF) awarded to **Mr. Ankan Biswas** (September 2019 - February 2020) to work at University College London, London, UK.

Dr. Shaikh S. Mobin was recognized as the Outstanding Reviewers for Dalton Transactions in 2018 (Dalton Trans., 2019, 48, 4758-4758).

Dr. Shaikh S. Mobin delivered a Keynote Lecture at International Symposium on Nanotechnology 2020 organized by American International University Bangladesh (AIUB), March 12, 2020 (Delivered via Skype).

Dr. Shaikh S. Mobin was invited by Arab German Young Academy of Sciences and Humanities (AGYA) as a Keynote Speaker for a Workshop on Emerging Materials for Water and Energy at Cairo, Egypt. November 2019.

Dr. Shaikh S. Mobin was invited for Inaugural Talk of the same workshop for practical sessions at University of Fayoum, Egypt. November 2019.

Dr. Selvakumar Sermadurai received Early Career Research Award from SERB -2019-2022

Discipline of Astronomy, Astrophysics and Space Engineering (DAASE)

The DAASE was initiated in December 2015. This interdisciplinary division is a unique department among all IITs and offers a dedicated and focused platform to pursue research in Astronomy. It is currently involved in mega-science projects and international collaborations.

Achievements, Awards, Recognitions and Editorships

1. **Dr Abhirup Datta** is Science Co-Chair of International SKA CD/EoR Science Working Group since January, 2020.
2. **Dr Bhargav Vaidya** was Invited as a Plenary Speaker at the Conference organized by Astronomical Society of India in February 2020.
3. **Dr Amit Shukla's** publication in Nature Communications: Gamma-ray flares from relativistic magnetic reconnection in the jet of the quasar 3C 279, Amit Shukla, K. Mannheim, accepted for publication in Nature Communications, 17 July 2020 (In press).
4. **Mr. Soumen Datta**, Ph.D. student under Dr. Saurabh Das, has been awarded the prestigious URSI Young Scientist Award in Union Radio Scientifique Internationale (URSI) GASS 2020, Rome, Italy.
5. **Anchal Saxena**, an M.Sc. student from the discipline has published his M.Sc. project outcome as an article in the Monthly Notices of the Royal Astronomical Society (an impact factor 5.5 journal) titled Impact of dark matter models on the EoR 21-cm signal bispectrum, Anchal Saxena, Suman Majumdar, Mohd Kamran, Matteo Viel. DOI: 10.1093/mnras/staa1768 . This is the first journal publication by an M.Sc. student of the discipline.

Electrical Engineering

Electrical Engineering was amongst the first disciplines to come into existence in 2009 at IIT Indore. The Discipline offers five different programmes: (1) B. Tech (2) MS (by Research) (3) M. Tech in Communication and Signal Processing, (4) M. Tech in VLSI Design and Nanoelectronics and (5) PhD. in Electrical Engineering. Besides these, 5-year dual B. Tech / M. Tech degree and a dual M. Tech / PhD. degree are also offered. EE faculty members have active collaborations with collaborators from US, France, Germany, Norway, Finland, Singapore, Japan and Russia. PG students are also encouraged to work in collaboration with Indian companies/Institutions abroad to foster cutting edge research. Undergraduate students are given the freedom to choose projects from not just EE but also from disciplines within the Institute.

Achievements, Awards, Recognitions and Editorships

1. **Dr. Amod C Umarikar** received Best Teacher Award of IIT Indore in February, 2020.
2. **Dr. Prabhat K Upadhyay** became the editor of IEEE Communication Letters.
3. **Prof. Ram Bilas Pachori** became the editor of IETE technical review journal.
4. **Prof. Ram Bilas Pachori** also backed the premium award for Best paper in IET Science, Measurement & Technology Journal.
5. **Dr. Shaibal Mukherjee** was the proud recipient of the 2020 DUO-India Professor Fellowship Award, and the 2019 DAAD Fellowship Award. Dr. Saptarshi Ghosh received the prestigious Matsumae International Foundation Research Fellowship Award.

6. **Prof. Vimal Bhatia** was awarded IETE- ProfSVC Aiya Memorial Award 2019.
7. **Prof. Ram Bilas Pachori** from Discipline of Electrical Engineering, Indian Institute of Technology Indore has been elected as a Fellow of the Institution of Engineering and Technology (FIET), United Kingdom (UK).

Mechanical Engineering

The Discipline of Mechanical Engineering offers programmes in the Bachelor's, Master's and Doctoral levels. Its strong and interactive curriculum and hands-on learning make students capable of taking their career to the next level, whether it be in the professional engineering practice or in advanced study. The department, right from its inception in 2009 has been focusing on high-quality teaching along with integrated laboratory experience. The B.Tech programme in Mechanical Engineering started from the year 2009-10 whereas the PhD. programme started from 2010-11. The department started first M.Tech programme in Production and Industrial Engineering (PIE) from year 2013-14 and second M.Tech programme in specialization Mechanical Systems Design from year 2018-19. This discipline also conducts regular Continuing Education Programme (CEP) courses as an outreach activity to the engineering community.

- **Prof. Neelesh Kumar Jain** of Mechanical Engineering appointed as Director (Officiating) of IIT Indore with effect from 1st Jan 2020 till further notice or resumption of charge by the new Director, whichever earlier.
- **Prof. Neelesh Kumar Jain** is appointed Associate Editor, International Journal of Precision Technology (Inderscience)
- **Prof. Neelesh Kumar Jain** was invited as a Chief Guest, World Engineers Day Function by Indore Chapter of Institution of Engineers on 6th March 2020 and delivered key-note lecture on Sustainability in Infrastructure Development in India.
- **Prof. Neelesh Kumar Jain** was invited as a Chief Guest, Seminar on "Enabling 5G in India" organized by Telecom Regulatory Authority of India (TRAI) on 24th Jan 2020
- **Prof. Neelesh Kumar Jain** served as a Jury Member for Industries Case Study Competition "Re-inventing the Future: Great Teams at Work" organized by Manufacturing Today Magazine of Aditya Birla Group 26 Aug. 2019 organized by at Hotel Radison Blu Indore.
- **Dr. I.A.Palani's** research student received Best M.Tech Thesis project for the year 2019 from Institute of Smart materials and structures society, IISC Bengaluru.
- **Dr. I.A.Palani's** Research Group Received Best paper award for the year 2019-2020 from IIT Indore.
- **Dr. I.A.Palani** received best teacher award for the year 2019 from IIT Indore.
- **Dr. I.A.Palani** conferred as Member Institute of Engineers, India
- **Dr. I.A.Palani** was awarded DST Travel grant for delivering talk in the International conference on Shape memory alloy Super elastic conference (SMST 2019), Konstanz, Germany
- **Dr. Santosh K. Sahu's** research article selected as qualified student award winner of the student paper competition in the ASME 2019 Power Conference (POWER2019) USA, 2019.
- **Dr. Santosh K. Sahu's** PhD students received SERB-Purdue University Overseas Visiting Doctoral Fellowship (OVDF) is awarded to carry out doctoral research at Purdue University, USA during January 2019- January 2020.

- **Dr. Santosh K. Sahu** visited Purdue University, USA (October 2-19, 2019) under SERB-Purdue University Overseas Visiting Doctoral Fellowship, 2019.
- **Dr. Santosh K. Sahu** chaired Track Session for 25th National and 3rd International ISHMT-ASTFE, Heat and Mass Transfer Conference (IHMTTC-2019), 2019, IIT Roorkee
- **Dr. Ankur Miglani** received Best Poster award during Annual Review meeting of NSF Graduated Cooling technologies Research Centre (CTRC), Purdue University, Oct. 2019
- **Dr. Satyanarayan Patel** received Young Achiever Award (YAA) 2020 in the academic excellence category from Indian Institute of Technology Mandi.
- **Dr. Satyanarayan Patel** is selected as Sectional Committee Member under Materials Science category by Indian Science Congress Association, Kolkata 2020.
- **Dr. Satyanarayan Patel** was a Keynote speaker in short term course on “Emerging Trends in Mechanical Engineering” from 8-12th June 2020 at Dr. K.N. Modi University Newai, Rajasthan on “Solid-state Refrigeration and Energy Storage”.

Metallurgy Engineering & Materials Sciences (MEMS)

MEMS began as the Centre for Materials Science Engineering comprising of faculty from the Schools of Basic Sciences and Engineering and transitioned into a full-fledged discipline in 2016. Amongst its notable practices include TEQIP sponsored short term courses International workshops and Consultancy Projects to provide advanced knowledge in various areas of MEMS to students and faculty from other institutions.

Achievements, Awards, Recognitions and Editorships

- **Dr. Parasharam M. Shirage** received “Materials Research Society of India Medal 2020”.
- **Dr. Rupesh S Devan** received DUO-India Professor Fellowship Award from ASEM-DUO, S. Korea. (2020).
- **Dr. Rupesh S Devan’s** article “ChemistrySelect 3 (2018) 7891-7899” is among the top 10 % most downloaded papers in Wiley (2020)
- **Dr. Rupesh S Devan** has become Professional member, International Solar Energy Society (Oct. 2019)
- **Dr. Mrigendra Dubey** got invitation as an “Invited Research Visitor” in France - 2019.
- **Dr. Ajay Kumar Kushwaha** received best paper Award: 5NANO2021 (International Conference on Nanoelectronics, Nanophotonics, Nanomaterials, Nanobioscience & Nanotechnology), Organized by IEEE Photonics Society Student Chapter, Mangalam College of Engineering, Kerala.
- **Dr. Sunil Kumar** received Early Career Research project was awarded “Excellent” grade by the Expert Committee during the project Review/Monitoring Meeting held on 14th & 15th February 2020 at IIT Delhi.
- **Dr. Ram Sajeevan Maurya** received Early Career Research Award, SERB-DST, 2019
- **Dr. Srimanta Pakhira** received Early Career Research Award, SERB-DST, 2019

COVID 19 - Challenges

Teaching

The COVID-19 pandemic has led to major disruption worldwide. A new normal has been redefined which is posing major challenges for the education sector. IIT Indore was fast enough to understand the gravity of the pandemic and were able to send all the students by March 17, 2020, little before the lockdown was announced.

IIT Indore was one on the few Institutes which constituted a COVID 19 Task Force in the 1st week of April 20. The objectives are to evolve Best and Safe Office, Lab and Academic Practices, Regulate and Control the Entry to the Campus, Accommodation and Dining Arrangements for Students and Staff, Ensuring Social Distancing in Offices, Classrooms, Laboratories, Library, Health Centre, Dining Facilities, Housekeeping, Security, etc., Compulsory Quarantine Policy after Return from outside the City/Campus, Regular Monitoring of the Health during the Quarantine Period and subsequently, and Continuously Monitoring the Evolving Situation on Daily Basis and take Decisions Accordingly. We also provided logistical support to the stranded construction workers.

The conduct of online classes commenced from 6th April 2020 onward with Online and Offline Sharing of the Course Materials and Live & Recorded Lectures. We also allowed Online submission of thesis and online viva of MTech, MS (Research) and MSc students. In one of its kind, we conducted Technology Enabled End-Sem Evaluation (TEEE) using Open Book concept for the graduating students of UG and PG programs, Preparatory and International Students during last week of June 2020 allowing them to submit their answers within 4-24 hours. Various Online Webinars on Innovation and Entrepreneurship, Health, Quizzes and sports events were conducted.

Research

We helped the COVID 19 testing facilities of Mahatma Gandhi Medical College Indore by lending Centrifuge and real-time PCR machine, gave our VECTOR facility to IIT Kanpur to facilitate their ongoing research for COVID 19 and contributed ~Rs 12 lacs to PM CARES Fund. Dr. Hem Chandra Jha of Biosciences and Biomedical Engineering extended his expertise and to the team involved in testing the samples for COVID-19 at Mahatma Gandhi Medical College, Indore. On the research front we submitted 46 Research Proposals and 25 COVID Related Projects during Lockdown. IIT Indore is conducting exemplary research in combating the covid19 challenges and our contributions in terms of research are as below:

S. No.	Faculty	Title of Research	Brief description
1	Dr. Sharad Gupta (Biosciences and Biomedical Engineering)	Covid-19	The departments of Biosciences & Biomedical Engineering and Electrical Engineering jointly are working on the development of sterilization chamber. The chamber will be using 254 nm ultra-violet (UV) rays to sterilize personal objects i.e. mobile phone, wallet, etc. of duty-bound police, doctors, and associated personnel. This is being done on the request of Shree Vivek Sharma, IG of Indore Zone.

2	Dr. I A Palani and Dr. Indrasen Singh (Mechanical Engineering)	Covid-19	Dr. I. A. Palani and Dr. Indrasen Singh, faculties in Mechanical Engineering, are working towards developing customized 3D printed reusable masks having a provision to have reusable filters and straps. These 3D printing is done on the fabrics and they will have a provision to be cleaned and reused. Few masks are already printed for trial purposes. In addition, the group is also in the process of developing customizable mask based on the different face features of an individuals.
3	Dr. Vipul Singh (Electrical Engineering) and Dr. I A Palani (Mechanical Engineering)	Covid-19	Dr. Vipul Singh, faculty in Electrical Engineering, Dr. I. A. Palani from Mechanical Engineering and Dr. Abhishek Srivastava from Computer Science and Engineering are working on the development on Shape Memory Alloy based optical temperature sensor for sensing the body temperature. This device can be fitted into the fabric of the patient and the body temperature can be continuously monitored without physical contact or thermometer or thermal scanner. The group is working on the process to further enhance the resolution of the sensor to continuously monitor the body temperature and make it an IOT enabled system, so that the doctors can monitor the patient's temperature even at remote locations.
4	Dr. Vipul Singh (Electrical Engineering)	Covid-19	Dr. Vipul Singh is also working on the development of UV-C LEDs and UV-C photodetectors for disinfection of surfaces/ PPEs against COVID-19 and other pathogens. The exposure to UV-C radiations is known to kill and inactivate pathogens by destroying their nucleic acids by disrupting their DNA.
5	Prof. Sandeep Choudhary (Civil Engineering) and Dr. Rajesh Kumar (Physics)	Covid-19	Prof. Sandeep Choudhary of Civil Engineering and Dr. Rajesh Kumar of Physics are working on the development of self-illuminating fluorescent bricks and coatings for UV Disinfection Building Chambers to disinfect the passenger luggage. This will be done by converting existing concrete buildings into closed UV chambers by completely packing the openings (doors, windows, and ventilators) to avoid the exposure of UV light.
6	Dr. Amit Kumar (Biosciences and Biomedical Engineering)	Covid-19	Dr. Amit Kumar, faculty in Biosciences and Biomedical Engineering has been scrutinizing the SARS-CoV-2 protein information for the designing an effective vaccine encompassing both the T-cell and B-cell epitopes. He and his group has screened all the proteins of SARS-CoV-2 to search for the patches that can be used for immunity generation against this pathogen. These patches were thoroughly analyzed by using various computational tools to generate a model vaccine candidate having a propensity to elicit protective immune response. The work is currently under peer review and represents preliminary data that can act as an initial platform for the rapid generation of an efficacious protective vaccine against SARS-CoV-2 infection.

7	Dr. Avinash Sonawane (Biosciences and Biomedical Engineering)	Covid-19	Six research groups representing different countries i.e. India, Norway, Sweden, USA, France and Denmark have been invited to be a part of the International Network Research Project "Stopping Covid-19 Pandemic", funded by Norwegian Research Council. The Indian research group led by Dr. Avinash Sonawane, faculty in Biosciences and Biomedical Engineering at IIT Indore. The objectives of this project are to study Covid-19 virus interaction with human host cells, pathology of Covid-19 in human and identify susceptibility-resistance factors, Cloud computing, Machine Learning (ML) and artificial intelligence (AI) as tools to identify primary drivers of COVID-19 infection. The Indian Research Group will be studying on the Proteomic and antibody generation.
8	Dr. Mirza S Baig (Biosciences and Biomedical Engineering)	Covid-19	Designing of a novel fusion peptide as a preventive as well as therapeutic, agent against SARS-CoV-2 infection
9	Dr. Mirza S Baig (Biosciences and Biomedical Engineering)	Covid-19	Structure-based design of novel peptidomimetics targeting the SARS-CoV-2 spike protein Expected Outcome : The study is expected to explore novel peptide derivatives, which could inhibit the interaction of SARS-CoV-2 with ACE2 thereby blocking its Entry into the Host Cells.
10	Dr. Mirza S Baig (Biosciences and Biomedical Engineering)	Covid-19	Dual Targeting of 3CLpro and PLpro of SARS-CoV-2: A Novel Structure-Based Design Approach to treat COVID19 infection
11	Dr. Mirza S Baig (Biosciences and Biomedical Engineering)	Covid-19	Identification of a Potential Peptide Inhibitor of SARS-CoV-2 Targeting its Entry into the Host Cells
12	Dr. Sharad Gupta (Biosciences and Biomedical Engineering)	Covid-19	Development of sterilization chamber by faculty members from BSBE and Electrical Engineering using 254 nm ultra-violet (UV) rays to sterilize personal objects i.e. mobile phone, wallet, etc. of duty-bound police, doctors, and associated personnel.
13	Prof. G.S. Murthy, Dr. Debasis Nayak, and Dr. Sharad Gupta (Biosciences and Biomedical Engineering)	Covid-19	Development of Disinfection Tunnel using ICMR approved water-soluble biocompatible disinfectant
14	Dr. Pankaj Sagdeo (Physics)	Covid-19	Development of UV based set up to deactivate Covid19 VIRUS

15	Dr. Santanu Manna (Mathematics)	Covid-19	Working on the time dependent Mathematical Model based on the following parameters a) Total Population b) Susceptible Population c) Infected Population infected d) Undetected infected Population e) Expected recovery of quarantined population f) Recovered Population
16	Team Avana IIT Indore	Covid-19	Hand Sanitizer (as per WHO guidelines)
17	Dr. Shanmugam Dhinakaran (Mechanical Engineering)	Covid-19	Experiments and lattice Boltzmann simulations of infectious virus transport in the air from humans
18	Dr. Parimal Kar (Biosciences and Biomedical Engineering)	Covid-19	Computer-Aided Drug Discovery against COVID-19
19	Dr. Parimal Kar (Biosciences and Biomedical Engineering)	Covid-19	Identifying Possible Potent Inhibitors against COVID-19 via Computational Drug Repurposing Study
20	Dr. M Tanveer (Mathematics)	Covid-19	Detection of Coronavirus using advanced machine learning techniques

Administrative Measures for Coping with COVID 19 Challenges

COVID 19 has completely altered the regular routine and has affected the human life badly across the world. Almost all the areas have been impacted, and it has slowed the economy as well as the speed of work. At IIT Indore, to minimize the effect and to maintain the momentum of administrative activities, several measures are adopted without compromising the health of the employees. Key steps taken in this regard are as listed below:

- 1) The staff welfare association of the Institute had taken a commendable step for providing any assistance in any abnormal situation arising due to lockdown. They have tried to help the community members in the best possible way as per their capacities.
- 2) Timely disbursement of salaries without any deduction for all the regular and contractual employees has been ensured during lockdown. Even timely payment to the labour employed by various contractors/service providers has been ensured during lockdown.
- 3) The entire Health Centre team of the institute has extended very well support to the community members by providing telemedicine advise and other special consultation related to medical issues even during the lockdown period.
- 4) The emergency staff members have been shifted inside the campus free of charge to facilitate the community members and to ensure their safety despite travelling long during this pandemic situation.
- 5) Constitution of Task force to deal with all issues related to reentry of faculty members, staff members, and students to the campus after completion of the national lockdown in view of COVID19 and resuming teaching, research, and administrative activities.
- 6) Alternate duty rotation has been adopted to ensure social distancing in the offices and staff members could work from home. Staff members who are having aged parents and small children were advised to take special precautions. Women staff members with small children could work flexibly with due care.
- 7) A complete set of protocol has been issued for the employees for attending the offices. Sitting and working arrangements inside the premises has been reshuffled for ensuring social distancing at workplace. Special arrangements were made for entry/exit and movement of persons and materials including fixtures, documents apparatus etc.
- 8) At entrance gate of the campus compulsory thermal checking desk has been made. All the building entrance point were equipped with shoe sanitizer and temperature check machines to ensure safety inside the offices. Sanitizers were placed at different places inside the offices.
- 9) Covid Task Force Convener, Registrar & Senior Medical Officer are issuing instructions for awareness, health advice and related work mechanism for a safe and healthy work environment inside the campus.
- 10) All the service providers and contractors associated with the institute were also counselled for providing appropriate medical facilities to the staff deputed by them at IIT Indore and they were also encouraged to incorporate health insurance scheme.
- 11) All the gatherings in the institute have been avoided and wherever necessary digital means of meeting as well as live streaming of the celebrations were adopted. Online meetings are encouraged, and IT team is extending complete support in this regard.

Infrastructural Developments

During such trying times of COVID-19, the infrastructure team of IIT Indore continued the hard work and completed various projects. The list follows:

Cricket Ground

To facilitate the students and to provide health benefits the Cricket Ground has been developed which has well developed viewers gallery and automatic irrigation system also.

This facility has been inaugurated by Prof. Neelesh Kumar Jain, Director (officiating) on January 26, 2020.

Two days workshop on Construction Safety Management

Institute always think to improve working efficiency of the official of the Institute. In this connection a 2-days workshop on Construction Safety Management was organized at IIT Indore. Engineers and officials of CPWD, IIT Indore and the representatives of contractors working for the Institute have participated and benefited with this workshop.

Following speakers deliver the lecture:

1. Prof. K.N. Jha, IIT Delhi
2. Prof. Dilip A. Patel, SV-NIT Surat

Nursery School & Creche

Campus school is a basic requirement for every IIT to facilitate the Institute community a Nursery School & Creche facility has been developed in School Building. This facility has been inaugurated on August 15, 2020 by Prof. Neelesh Kumar Jain, Director (Officiating) and Prof. Deepak B. Phatak, Chairman BOG, IIT Indore was guest of honour.

Institute Gate Complex-1

This Institute Gate Complex-1 has been planned and initially a selfie wall has been constructed at Gate No. 1 of the Institute. The future planning of Institute Gate Complex is to develop this for various common use services. In this connection PMBJP Kendra (Pradhan Mantri Bhartiya Janaushadhi Pariyojana Kendra) is also under consideration. This proposal may help nearby villagers and improve social outreach of IIT Indore.

This facility has been inaugurated by Prof. Deepak B. Phatak, Chairman, BOG, IIT Indore

In the presence of Prof. Neelesh K. Jain, Director (Officiating), IIT Indore on February 17, 2020.

Devi Ahilya Hall of Residence & Vikram Sarabhai Hall of Residence

Above buildings have been inaugurated by Dr. K. Radhakrishnan, Former Chairman, ISRO in the presence of Prof. Deepak B. Phatak, Chairman, BOG, IIT Indore and Prof. Neelesh K. Jain, Director (Officiating), IIT Indore on February 17, 2020.

These hostel buildings have capacity of 490 students and will have inhouse facility of indoor sports like badminton courts etc.

Central Dining Facility

The Central Dining Facility is at present the best socialization place for IIT Indore community members and this building has total built up area: 9,289 Sqm. G+2 configuration. The estimated cost: Rs. 52.32 Crores. Work was completed in August 2019 and it has the Dining area on the ground floor first floor and second floor and Kitchen area. This facility has been inaugurated on February 7, 2020 by Prof. Deepak B. Phatak, Chairman BOG, IIT Indore and Prof. Neelesh Kumar Jain, Director (Officiating).

Parking facility for Narmada Residential Complex

To facilitate the campus residents and visitors, a parking in Narmada Residential Complex has been developed for 2 wheelers and 4 wheelers.

Learning Resource Center

This building has been inaugurated by Prof. Neelesh Kumar Jain, Director (Officiating) on September 5, 2020. Prof. Deepak B. Phatak, Chairman, BOG IIT Indore was guest of honour. This building has total built up area: 9,641 Sqm with G+4 configuration. The estimated cost: Rs. 59.56 Crores. Facilities in this building are free study hall, covered lobby, Office, Cafeteria, Book Stack Area, Reading Hall.

Takshila Lecture Hall Complex

This building will be inaugurated by Dr. Ramesh Pokhriyal 'Nishank', Education Minister, Govt. of India and Shri Sanjay Dhotre, Minister of State for Education, Govt. of India on October 19, 2020 (Monday) in the presence of Professor Deepak Bhaskar Phatak, Chairman, Board of Governors and Professor Neelesh Kumar Jain, Director (Officiating) on the occasion of 8th Convocation of IIT Indore. Area 19,706 Sqm. (Block A+B+C), G+3, Cost: 125.56 Cr., Well-equipped Classrooms with Audio Visual facilities.

Vikramshila Seminar Hall Complex

Following Seminar Hall Complex have been inaugurated by Prof. Neelesh Kumar Jain, Director (Officiating) in the presence of Prof. Deepak B. Phatak, Chairman, BOG, IIT Indore on September 5, 2020.

1. Gargi Seminar Hall
2. Kalidas Seminar Hall
3. Maitreyi Seminar Hall
4. Sandipani Seminar Hall

Abhihandan Bhavan

This building will be inaugurated by Dr. Ramesh Pokhriyal 'Nishank', Education Minister, Govt. of India and Shri Sanjay Dhotre, Minister of State for Education, Govt. of India on October 19, 2020 (Monday) in the presence of Professor Deepak Bhaskar Phatak, Chairman, Board of Governors and Professor Neelesh Kumar Jain, Director (Officiating) on the occasion of 8th Convocation of IIT Indore. Area: 7,347 Sqm. G+9 Cost: 46.96 Cr.

Kendriya Vidyalaya

This building will be inaugurated by Dr. Ramesh Pokhriyal 'Nishank', Education Minister, Govt. of India and Shri Sanjay Dhotre, Minister of State for Education, Govt. of India on October 19, 2020 (Monday) in the presence of Professor Deepak Bhaskar Phatak, Chairman, Board of Governors and Professor Neelesh Kumar Jain, Director (Officiating) on the occasion of 8th Convocation of IIT Indore. Area: 8,628 Sqm., G+2, Estimated Cost: 23.35 Cr.

Computer & Information Technology Center

This building will be inaugurated by Dr. Ramesh Pokhriyal 'Nishank', Education Minister, Govt. of India and Shri Sanjay Dhotre, Minister of State for Education, Govt. of India on October 19, 2020 (Monday) in the presence of Professor Deepak Bhaskar Phatak, Chairman, Board of Governors and Professor Neelesh Kumar Jain, Director (Officiating) on the occasion of 8th Convocation of IIT Indore.

Area: 2,000 Sqm. G+1 Cost: Rs. 4.90 Cr. Facilities: Data Centre, Networking, Control & Command Center, DBM Security Office, Emergency Operation Room, Communication Room, Conference Hall BMS, Electrical room, Battery, UPS and Panel Room, Pantry

Central Workshop

This building will be inaugurated by Dr. Ramesh Pokhriyal 'Nishank', Education Minister, Govt. of India and Shri Sanjay Dhotre, Minister of State for Education, Govt. of India on October 19, 2020 (Monday) in the presence of Professor Deepak Bhaskar Phatak, Chairman, Board of Governors and Professor Neelesh Kumar Jain, Director (Officiating) on the occasion of 8th Convocation of IIT Indore. Area: 2,594 Sqm. G+1 Cost: Rs. 8.02 Cr. Facilities – Workshop, Offices

Vindhyachal Guest House

Vindhyachal Guest House is facility to accommodate Institute Guests and Delegates. This facility has been inaugurated on August 15, 2020 by Prof. Neelesh Kumar Jain, Director (Officiating) and Prof. Deepak B. Phatak, Chairman BOG, IIT Indore was guest of honour. Total built up area: 2100 Sqm., G+1 configuration. The estimated cost: Rs. 9.41 Crores. Total 18 room (single occupancy)+ 1 suite, Reception Dining Hall & Kitchen Area.



Nursery School & Creche



Nursery School & Creche



Nursery School & Creche



Hostel Inauguration



Central Dining Facility



Central Dining Facility



Parking facility for Narmada Residential Complex



Learning Resource Center



Parking facility for Narmada Residential Complex



Learning Resource Center



Parking facility for Narmada Residential Complex



Computer & Information Technology Center

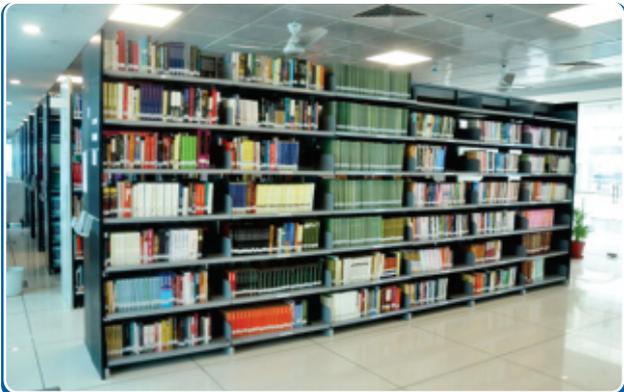


Vindhyachal Guest House



Vindhyachal Guest House

Learning Resource Center



Takshila Lecture Hall Complex



Abhihandan Bhavan

Kendriya Vidyalaya

Vikramshila Seminar Hall Complex



Discipline of Computer Science and Engineering

From the HoD's Desk



Dr. Surya Prakash

Assistant Professor & HOD

surya@iiti.ac.in



Introducing faculty members of CSE

- Dr. Kapil Ahuja
- Dr. Gourinath Banda
- Dr. Narendra S. Chaudhari
- Dr. Somnath Dey
- Dr. Punit Gupta
- Dr. NeminathHubballi
- Dr. Nagendra Kumar
- Dr. Chandresh Kumar Maurya
- Dr. Bodhisatwa Mazumdar
- Dr. Surya Prakash
- Dr. Anirban Sengupta
- Dr. Ranveer Singh
- Dr. Abhishek Srivastava
- Dr. Aruna Tiwari

CSE@IIT Indore has a strong Ph.D. student group comprising of around 35 students. We have close to 200 undergraduates.

Discipline research areas:

Current CSE faculty and students focus on a wide range of emerging research areas. These include

- Networking, Network Security, System Security, Cloud Computing, Cloud Security, Dependable Systems & Network Management, and Enterprise Management.
- Embedded Systems (Cyber-physical Systems, Internet-of-Things, Wireless Sensor Networks, etc.), their Formal Verification (Model Checking, Abstract Interpretation, Program Transformation & Generation, Program Analysis) and Semantics-based Emulation of Languages & Systems.
- Algorithms and Theoretical Computer Science, Algorithmic Graph Theory, Computational Complexity.
- Computational Science & Engineering, Numerical Linear Algebra, Numerical Analysis and Optimization.
- Big Data Analytics, Soft Computing, Computational Intelligence, Artificial Intelligence, Learning Algorithms, Neural Networks, Genetic Algorithms, Evolutionary Approaches, and Game Artificial Intelligence(AI).
- Pattern Recognition, Computer Vision, Image Processing, Biometrics, Human-Computer Interaction, Machine Learning, and Deep Learning.
- Hardware Security, Side Channel Analysis Attacks on Cryptographic Implementations, Security Aspects in Emerging VLSI Technologies, Security of Hardware Accelerator and Machine Learning for VLSI.
- CAD-VLSI, EDA, High-Level Synthesis, IP core Security, Hardware Trojan, Fault Security, Digital Watermark in Digital Chip, Optimization of Hardware Accelerators, and Design Automation.
- Service-Oriented Systems, Dynamic Systems, Geographically Distributed Development Environments, Agile Techniques, Software-as-a-Service and Wireless Sensor Networks.
- Natural Language Processing, Social Network Analysis, Information Retrieval, and Data Mining.
- Autonomous vehicles, Certification framework for Safety Assurance in Autonomous Vehicles.

Facilities in CSE

- The Discipline of CSE has three general purpose/undergraduate laboratories and one MS (Research) laboratory. Along with this, we have around 10 research laboratories.
- The general-purpose laboratories consist of three high-end computing servers supporting a full-fledged Network File System (NFS) and LDAP functionalities. We also have a Moodle Server to cater the teaching needs.
- The general-purpose laboratories have around 210 computing terminals catering to the academic requirements of undergraduate and graduate students. These laboratories also serve the need of various placement activities. All the terminals in these labs offer Windows and Linux working environments with a thrust towards the use of Open-Source Software for various applications.
- The discipline also has a high-performance cluster for the development of scalable soft computing learning algorithms for big data handling as well as for running of large computational science and engineering, image processing, and cloud computing application codes.

Discipline of Electrical Engineering

From the HoD's Desk



Dr. Vipul Singh

Associate Professor, Electrical
Engineeringvipul@iiti.ac.in



The vision of the discipline is to impart quality education and promote inter-disciplinary, industry-oriented advanced scientific research to address the challenges and develop future technologies for societal requirements. The Discipline of Electrical Engineering (EE) at IIT Indore has been a major center for both academic and research programs in various branches of electrical engineering, which includes micro/nanoelectronics, communication & bio-medical signal processing, power electronics and power systems. The discipline has grown significantly in terms of faculty strength with diversified specializations, state of the art research facilities and undergraduate and postgraduate students' strength.

The academic programs offered by the discipline include B. Tech., M. Tech., M. S. (Research) and Ph. D. Two M. Tech. programs namely (i) Communication and Signal Processing and (ii) VLSI Design and Nanoelectronics are currently being offered. The discipline also hosts many Post-Doctoral Fellows and Scientists from time to time.

The discipline presently has fourteen faculty members and one DST Inspire Fellow, having proven expertise in diverse areas of Power Electronics and Power Systems, Micro and Nano-electronics, Organic & Flexible Electronics, Communications, Signal Processing, Image Processing, RF-Microwave, Electromagnetics, Frequency selective surfaces, estimation and filtering and Bio-photonics etc. In addition to the state of the art UG/PG laboratories discipline also has the following specialized research laboratories:-

- Bio-medical Signal Processing Laboratory
- Bio-Photonics Laboratory
- Devices, Circuits and System Design Laboratory
- Hybrid Nanodevice Research Laboratory
- Low Power Nano-Electronics Laboratory
- Optoelectronic Nanodevice Research Laboratory
- Molecular and Nanoelectronics Research Laboratory
- Power Electronics and Power Systems Laboratory
- Wireless Communication Research Laboratory
- Stochastic Control Laboratory
- Future Generation Communication Systems Laboratory
- Advanced Electromagnetics Laboratory
- Pattern Recognition and Image Analysis Laboratory
- Signals and Software Group

The discipline currently has about 18 ongoing research projects funded by various external agencies including Department of Science & Technology, SERB, Council of Scientific and various, ISRO and others. The discipline is consistently moving forward in research activities as evidenced by publications in various high-quality International Journals and Conferences and the patents filed. During the Academic year 2019-20 the EE published more than hundred journal papers in high impact journals. During this academic year one of the key highlight was a high valued project granted by DST-Nanomission having a net worth of ~ INR 1.4 Crore. The strong footing of Discipline of EE is further proven by the number of Ph.D. students graduated. A total of 20 students successfully completed their Ph.D. from the Discipline in the AY 2019-20 alone, which is nearly one-fourth of the total number of Ph.D. students graduated till date since the inception of the Discipline.

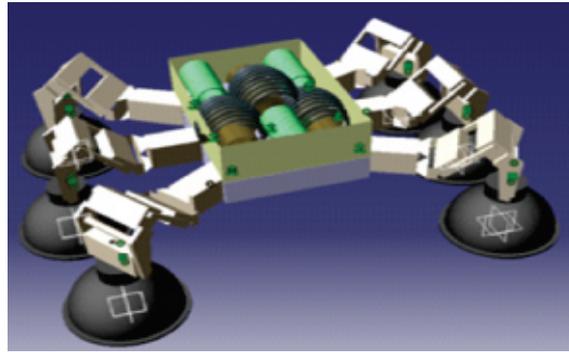
The faculty members of EE strive to instill analytical and practical skills in the students. This is systematically achieved by incorporating various sub-components as a part of the regular course learning and evaluation, industry-relevant projects, field trips and real-time assignments that would substantially benefit in understanding and utilization of concepts. In addition to that, students of various categories have been supported to attend numerous conferences, competitions, and winning laurels. As a result, our students have secured several foreign internships (viz. DAAD, Fulbright fellowships etc.) along with higher studies option with scholarships from top Universities and appreciation of their work in industries.

A constantly evolving environment has been created in IIT Indore, where the community interacts frequently in looking for out-of-the box solutions to solve problems, invited many industries to visit our discipline and have constant discussions on various problems with academia to get insights. An interdisciplinary approach followed by EE faculty members has emerged taking up some of these engineering problems as projects and internships that have been successfully solved by our students. This has resulted in collaborations with industry for sponsored research.

Some of the key notable achievements by the faculty members of the discipline during the AY 2019-20, are as given below: -

- Dr. Amod C Umarikar received Best Teacher Award of IIT Indore in February 2020.
- Dr. Prabhat K Upadhyay became the editor of IEEE Communication Letters.
- Prof. Ram Bilas Pachori became the editor of IETE technical review journal.
- Prof. Ram Bilas Pachori also backed the premium award for Best paper in IET Science, Measurement & Technology Journal.
- Dr. Shaibal Mukherjee was the proud recipient of the 2020 DUO-India Professor Fellowship Award, and the 2019 DAAD Fellowship Award. Dr. Saptarshi Ghosh received the prestigious Matsumae International Foundation Research Fellowship Award.
- Prof. Vimal Bhatia was awarded IETE- Prof SVC Aiya Memorial Award 2019

Discipline of Mechanical Engineering



Research Thrust/Facility

- Micro-Channel Heat Transfer, Nuclear Thermal Hydraulics, Combustion & Computational Fluid Dynamics(CFD)
- Thermal management of power-dense electronics
- Condition Monitoring & Prognosis
- Micro-Mechanics & Nano-Mechanics
- Laser & Additive Manufacturing
- Mechatronics & Control

Application Areas

- Biomechanics & Composite Structures
- Gear Manufacturing & Noise Vibration Harness (NVH)
- Smart Manufacturing
- Green Energy & Biofuels
- Robotics & Control
- Automotive & Aerospace
- Electronic and Steel Processing
- Waste Energy Harvesting
- Health prediction of the hydraulic systems

From the HoD's Desk



Dr. Santosh K. Sahu

Associate Professor
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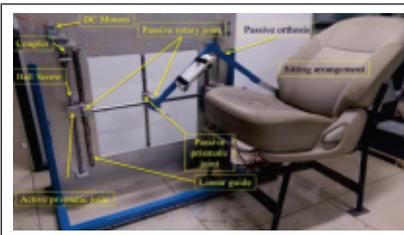


The Mechanical Engineering department is committed to provide quality education by carrying out robust research programs and working closely with industry. The Discipline offers various programmes such as BTech, MTech, MS (Research) and PhD. Currently, the discipline offers two MTech programmes (i) Production and Industrial Engineering and (ii) Mechanical System Design. One of our major objectives is to provide quality engineering education with basic as well as specialized engineering training required for the present and emerging requirements of the society. The discipline also has a responsibility to conduct relevant social research with cutting-edge technology; to provide continuing education to practicing industrial engineers; and, to develop industry/academia collaborations. The discipline also organizes continuing educational programs. It comprises of 19 regular members of the faculty.

Achievement of Discipline in the current reporting year

- Developed world class infrastructures in various cutting edge technologies including, Industry 4.0, autotronics, additive manufacturing, smart materials, spray diagnosis, thermal hydraulics, micro-channel heat transfer, computational fluid dynamics, vibration and condition monitoring, atomistic modelling among others.
- Secured funding from different external funding agencies including SERB, DST, CSIR, ISRO, DRDO, Royal Academy of Engineering, RSF and OVDF scheme.
- Strong international linkage through VAJRA faculty scheme, SPARC programme and conducting multiple GIAN courses.
- The Discipline has published around 100 Research publications in reputed International Journals.
- Discipline has built strong linkage in terms of consultancies and man power training with industries such as VovloEischer, WABCO India Ltd and John Deere.
- Alumnus from the discipline is placed in reputed industries and R&D centres including ISRO, DRDO. In addition, the students have also received scholarship to pursue their higher studies including post-doctoral fellowships in highly ranked abroad universities.

Research at glance - Discipline of Mechanical Engineering



Pulsed Laser Deposition System

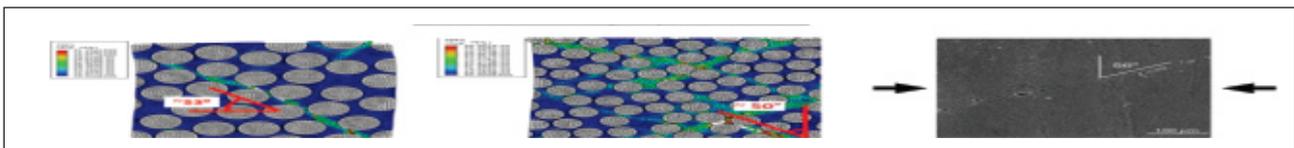
Real-time scaled down prototype of ANKUR-LL 2

Design of Hybrid Underwater Vehicle with fin propulsion

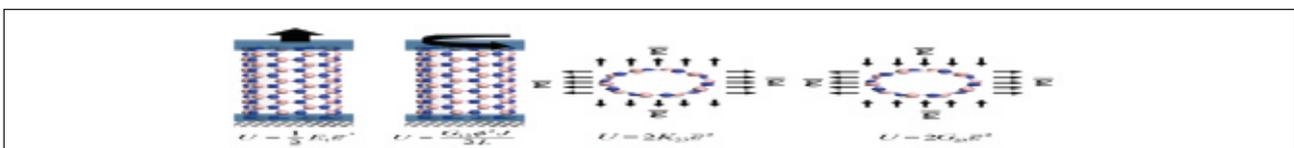
Design, manufacturing and computational research @ composite materials lab



Continuum simulations @ composite materials lab



Molecular dynamic studies at ATOM lab



Discipline of Civil Engineering



Research Thrust/Facility

- Concrete Technology
- Earthquake Engineering
- Environment Engineering
- Geotechnical Engineering
- Hydrology & Water Resource Engineering
- Structural Engineering

Application Areas

- Disaster Management
- Smartcities, Urbanplanning
- Municipal Solid Waste Management
- Structural Health Monitoring
- Sustainable Construction
- Water-Energy-Foodnexus
- Himalayan Glaciology

From the HoD's Desk



Dr. Neelima Satyam

Associate Professor
neelima.satyam@iiti.ac.in

The Discipline of Civil Engineering has been functioning since 2016 with a focus on basic and applied research to solve real world problems. The Discipline offers a four-year course leading to the Bachelor's Degree in Civil Engineering and PhD. in Civil Engineering. The CE faculty and students are actively involved in sponsored research projects funded by the Government of India as well as in industry/consultancy projects through out the country and a broad. The Discipline has an active and dynamic faculty with international exposure having expertise in diverse fields of civil engineering.

The CE faculty has been recognized at different platforms across the world as committee chairs/ members, outstanding reviewers, editorial board members. Our Discipline looks forward to establishing it self, nationally and globally, as a premier academic centre with active industry interaction and national/international collaborations.

Discipline of Mathematics

From the HoD's Desk



Dr. Md. Aquil Khan

Associate Professor

aquilk@iiti.ac.in

Research Thrust/Facility

- Dr. Sk. Safique Ahmad
- Dr. Swadesh Kumar Sahoo
- Dr. Antony Vijesh
- Dr. Anand Parkash
- Dr. Md. Aquil Khan
- Dr. Niraj Kumar Shukla

Application Areas

- Dr. Ashisha Kumar
- Dr. Vijay Kumar Sohani
- Dr. M. Tanveer
- Dr. Sanjeev Singh
- Dr. Santanu Manna
- Dr. Anupam Pal Choudhary
- Dr. Charitha Cherugondi



Discipline of Mathematics

The Discipline of Mathematics at IIT Indore has been a major center for both academic and research programs in various branches of Mathematics. The discipline has been constantly engaged in frontier areas of research and encourages collaborative research with other Science and Engineering Disciplines. The discipline currently offers PhD. and M.Sc. programs in Mathematics and envisages other Master's programs in all fields such as Statistics and Applied Computing.

The faculty are well-qualified and motivated with a strong commitment to teaching and research. This is reflected through (i) various academic events of national and international importance conducted in the discipline, (ii) ongoing research projects sponsored by several funding agencies such as NBHM, SERB, DST, CSIR; and, (iii) research publications in reputed journals. Further, the discipline is also engaged in promoting Mathematics among under-graduate students in India through Madhava Mathematics Competition. The discipline also conducted lectures by eminent mathematicians from reputed institutes around the world such as Ohio University (USA), Tohoku University (Japan), Shantou University (Republic of China), Sapienza University of Rome, etc

School of Humanities and Social Sciences

From the HoD's Desk



Dr. Nirmala Menon

Associate Professor

nmenon@iiti.ac.in

The hallmark of School of Humanities and Social Sciences is a genuine interaction between multifarious approaches to knowledge, signifying the importance of each approach. It believes in a multi-disciplinary kaleidoscopic approach looking at both convergence and divergence of knowledge. We emphasize on providing students with the much-needed experiences that enable them to face the opportunities and challenges of today's changing world. In this effort, we always prepare ourselves to provide excellence in teaching and research through a continuous improvement process.

We have 15 faculty members and more than 50 PhD research students working in exciting projects and problems. The faculty members of the School are an eclectic mix of researchers from varied disciplines of Economics, English, History, Philosophy, Psychology and Sociology. Apart from their disciplinary affiliations each of the faculty members are engaged in their specialised areas of research and write, publish and speak about their work. The interdisciplinary nature of the research within the school is reflected in two ways:

1. By the established research groups and their works that span different disciplines and areas of intellectual discourse. The following focussed research groups are active within the School:
 - Digital Humanities and Publishing Lab
 - Innovation Studies and Econometrics Lab
 - Literature and Law
 - Philosophy of Ethics Studies
 - Sociology of Religion
 - Water Governance and Policy Studies
 - Human Factors and Cognition Lab
 - Linguistics
 - Performance Studies in Literature and other Arts
 - Sustainability Studies Lab
 - Sociology of Film and Media Studies
2. The research collaborations of the faculty members across these areas both within the school, across other Engineering and Science disciplines in the Institute as well as with other colleagues both nationally and internationally demonstrate the truly interdisciplinary nature of the research of the faculty members of the school.

We therefore have a vibrant PhD programme that comprises course work and a rigorous dissertation and project work. Our students have won prestigious national and international scholarships, fellowships and awards and we are very proud of their achievements when they are part of the school and all of our graduating students have gone on to excel themselves in their chosen careers too. Over the years, the School has hosted seminars, conferences, invited talks and lectures and our students have been actively involved in every one of those events, often leading from the front in organizing and facilitating them.

In the last year, the School has organized distinguished talks on the state of diplomatic conditions between India and Pakistan, approaches to understanding the field based empirical research, the right model of Stochastic Volatility and decision-making mechanisms used as pedagogical tool.

Discipline of Chemistry

From the HoD's Desk



Dr. Biswarup Pathak

Associate Professor & HOD

hodchemistry@iiti.ac.in



Introducing members of Chemistry

- Dr. Tridib Kumar Sarma
- Dr. Rajneesh Misra
- Dr. Anjan Chakraborty
- Dr. Apurba Kumar Das
- Dr. Suman Mukhopadhyay
- Dr. Sampak Samanta
- Dr. Tushar K. Mukherjee
- Dr. Shaikh M. Mobin
- Satya S. Bulusu
- Dr. Sanjay Kumar Singh
- Dr. Biswarup Pathak
- Dr. Chelvam Venkatesh
- Dr. Amrendra Kumar Singh
- Dr. Abhinav Raghuvanshi
- Dr. Dipak Kumar Roy
- Dr. Selvakumar Sermadurai
- Dr. Umesh A. Kshirsagar

Chemistry@IIT Indore comprises of 17-faculty members, 5-post-doctoral fellows, and 100+ Ph.D. students.

Discipline research areas and funding:

Faculty and students are involved in the research activities in several frontier areas of chemical sciences that include nanotechnology, organic light harvesting materials, organometallic pharmaceuticals, asymmetric synthesis, heterocyclic chemistry, biosensor metal clusters, molecular fluorescence spectroscopy, computational aspects of materials and molecular inhibitors for disease targets, drug discovery, catalysis, clean energy, green and sustainable chemistry and total synthesis of natural products. Research in these areas has been recognized by the scientific community in the form of international peer-reviewed research publications and lectures in national and international conferences. Our research is supported by generous funding from private as well as Government agencies, particularly DST-SERB, CSIR, DBT, DAE and DAAD.

Teaching:

The Discipline of Chemistry at IIT Indore is the only 2nd generation IITs built in India to introduce a two-year master's program in Chemistry wherein a full year, specially 2nd year of the program, is dedicated for laboratory research in the field of students choice. Since 2013, this unique programme devotes a full year to solve real research problems in the laboratory and give an exposure to students if they would like to proceed with a doctoral program in their higher studies. This makes sure only qualified and motivated students pursue doctoral program and contribute to the welfare of the society. Additionally, students decide on their journey for doctoral program or look for a lucrative job after the completion of master's program at IIT Indore.

Discipline of Physics

From the HoD's Desk



Dr. Krushna Mavani

Professor & HOD
hodphysics@iiti.ac.in



Introducing members of Physics

- Dr. Subhendu Rakshit
- Dr. Sarika Jalan
- Dr. Ankhi Roy
- Dr. Manavendra Mahato
- Dr. Raghunath Sahoo
- Dr. Preeti Anand Bhobe
- Dr. Rajesh Kumar
- Dr. Pankaj R. Sagdeo
- Dr. Sudeshna Bandopadhyay
- Dr. Somaditya Sen
- Dr. Sudip Chakraborty
- Dr. Dipankar Das
- Dr. Debajyoti Sarkar

Physics@IIT Indore has a strong Ph.D. student group comprising of around 32 students. We have close to 73 students pursuing postgraduate program.

Discipline research areas:

Our faculty members have expertise in diverse areas like theoretical and experimental condensed matter physics, theoretical and experimental high energy physics, complex networks and nonlinear dynamics, and computational physics.

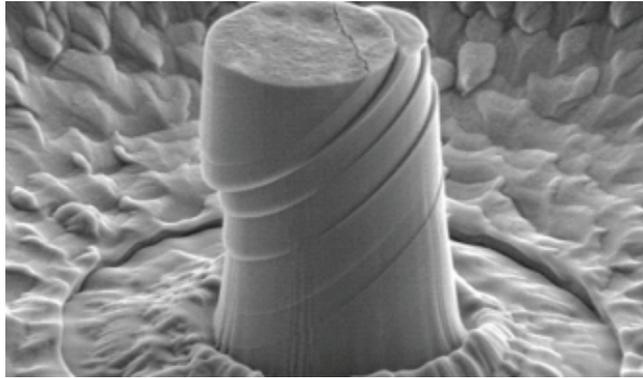
Notable Achievements:

The discipline has shown a rapid growth in publications with a total of 530 publications in international journals and total external funding worth Rs 13.7 crore through research projects. Presently there are 21 ongoing projects worth Rs 8.8 crore supported by the external funding agencies.

Facilities in Physics

Discipline of Physics was established in July 2009 at the time of inception of IIT Indore. The discipline has shown expansion in every aspect including number of students, faculty members, research projects and research facilities year by year. In the present era, when research and education has become an utmost important aspect of the progressive life and culture, the discipline has developed very advanced research facilities to train and educate students with a blend of basic knowledge. With the advanced PG courses and training, the discipline targets to enhance the perception of students in education and research.

Discipline of Metallurgy Engineering and Materials Science



Research Thrust/Facility

- Physical & Mechanical Metallurgy
- Welding & Failure Analysis
- Non-destructive Evaluation of Materials
- Electronic & Energy Materials
- Nano Materials, Soft Materials
- Corrosion & Surface Engineering

Application Areas

- Alloy Development for Light weight Automotive applications
- Alloy designing for High temperature applications
- Surface Engineering of Materials
- Synthesis & Design of Novel Materials for Energy Applications
- Characterizing the Physical & Mechanical Properties of Materials

From the HoD's Desk



Dr. Vinod Kumar

Assistant Professor
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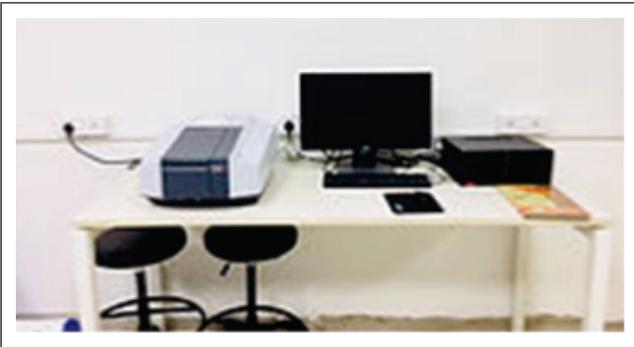
The Department of Metallurgy Engineering and Materials Science (MEMS) is home to two separate programs in Metallurgical Engineering and Materials Science. Our focus is to carry out interdisciplinary research in material science field to find solutions for real-world intricate problems which benefit the society. Our goal is to understand the processing and structure of several classes of materials; and then correlate these to the properties, thus enhancing their performance. The department has 15 core faculty members, 1 Ramanujan fellow, and 1 adjunct faculty, Dr. Vilas Pol from Purdue University. MEMS faculty members working in various research areas, ranging from conventional metallurgy to modern materials science. The major research areas are spread across structural materials (Steels, Titanium alloys, High entropy alloys, Magnesium alloys, and Composite materials), energy conversion and storage materials (Solar Cells, Supercapacitors, Li-ion batteries, etc.), functional materials (Piezoelectrics, Gels, and Shape memory alloys), and computation materials science. MEMS department offers several courses at undergraduate and graduate levels. Besides PhD. program, there are currently 2 M.Tech programs (Materials Science & Engineering and Metallurgy Engineering) and an undergraduate program.



MEMS Faculty members

Facilities in MEMS

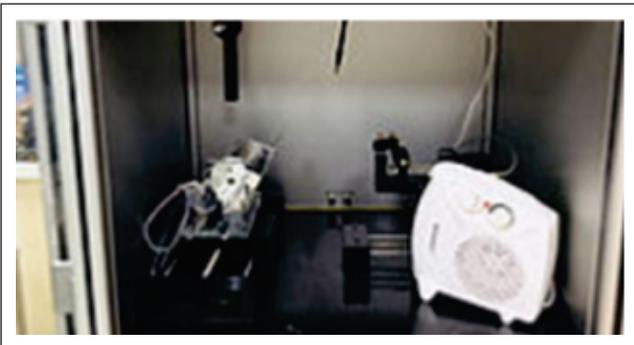
The discipline is well-equipped with the state-of-the-art facilities for synthesis/fabrication and characterization of a wide range of materials for various physiochemical properties and device fabrication.



UV-Vis Spectroscopy



Hot Filament CVD



Electros pining



Rotary Evaporator



High Temperature Oven



Ultra Sonicator



Nd:YAG Laser



Continuous Fibre Laser



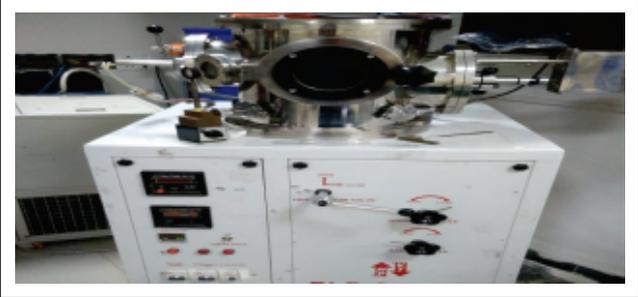
DC + RF Sputtering



Flash Evaporation



Arc Melting



Pulsed Laser Deposition



GMAW based Wire Arc Additive Manufacturing



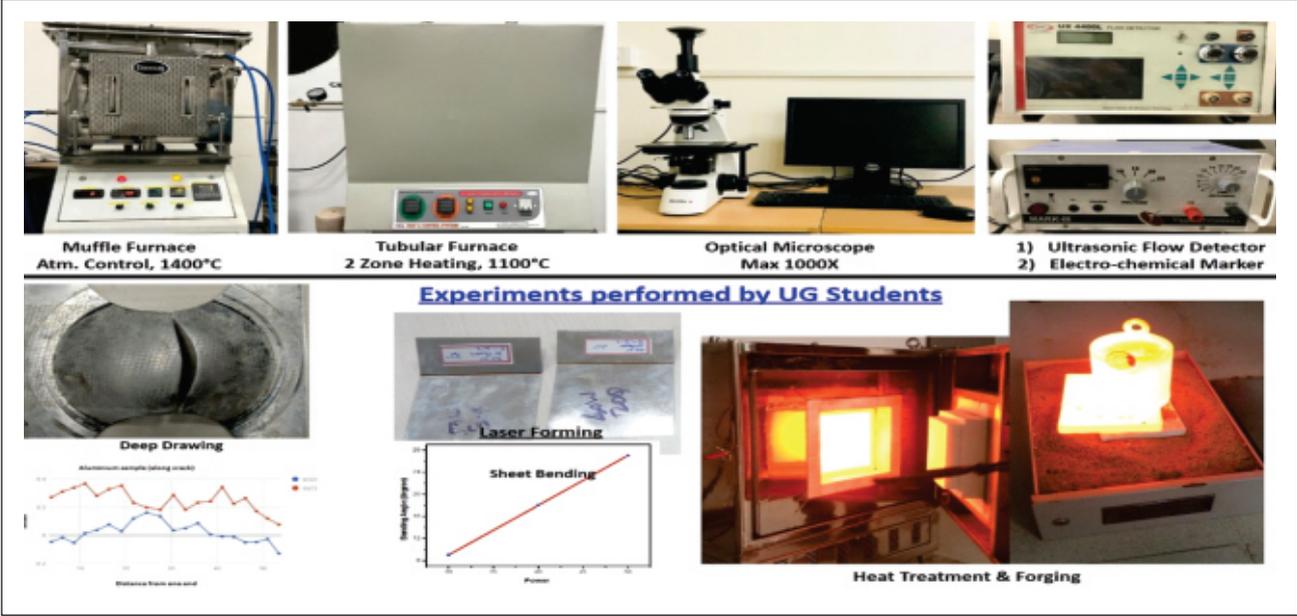
Optical Microscope



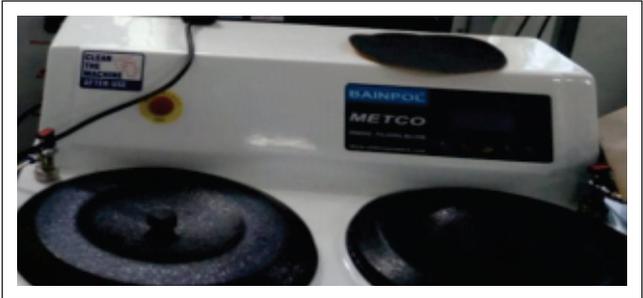
Straining Setup for SMA



Thermal Evaporation



Tube Furnace

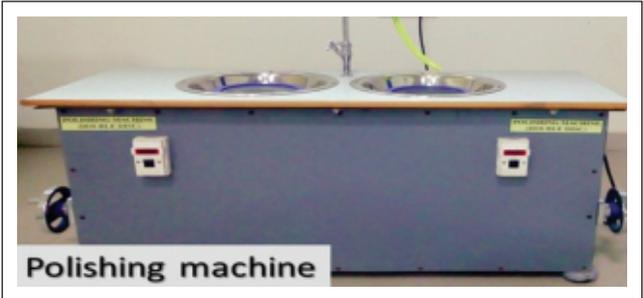


Polishing Machine

Specimen preparation equipment



High speed saw



Polishing machine

Mechanical testing equipment



Automatic Ball Indenter



Tensile testing m/c

Impact testing m/c

Discipline of Biosciences and Biomedical Engineering



Research Thrust/Facility

- Fluorescence-Activated Cell Sorting (FACS) Sorter & FACS Analyzer (BD)
- Confocal Microscope
- Atomic Force Microscopy (AFM) & Field Emission Scanning Electron Microscopy (FE-SEM)
- Quad Time-of-Flight (Q-TOF), Liquid Chromatography-Mass Spectrometry (LC-MS) & Gas Chromatography-Mass spectrometry (GC-MS)
- Real Time PCR, Iso Electric Focusing, Photo-luminescence Spectroscopy

Application Areas

- Disease Diagnosis
- Personalised Therapy
- Drug Discovery & Delivery
- Vaccine Development
- Biomedical Signal Processing

From the HoD's Desk



Dr. Sharad Gupta

Associate Professor
shgupta@iiti.ac.in

The Biosciences and Biomedical Engineering (BSBE) group at the Indian Institute of Technology Indore was founded in July 2012 with a vision of establishing a Centre of Excellence that will focus on human resource development and research in Biosciences, Bioengineering and Biomedical Engineering. The BSBE group aims to be internationally recognized in Bio-related areas and produce the leaders of tomorrow in the field, with the integrated use of training, and career development efforts to improve individual, group and organizational effectiveness.

Our vibrant group of faculty members and research scientists aspire to create an ambience for the smooth pursuit of scholarly activities in research as well as training on the study of life and living organisms, ranging from simple bacteriophage to complex multi-cellular organisms such as humans; with the focus being on structure, function, growth, origin, evolution, distribution, and taxonomy. In addition to basic biology research, the BSBE group seeks to contribute towards applied research on practical problems in the country.

With the application of engineering principles, design concepts of biology, medicine and other sciences, the group hopes to devote its energy and expertise on translational technology innovations to achieve improved longevity, health, and well-being for humans; to pursue research and development activities resulting in discoveries in imaging techniques, diagnostic kits; and novel therapies. Additionally, the group actively engages with physicians and clinicians abroad and in India for undertaking patient-based research. The long-term vision is to pursue cutting-edge research that provides sustainable solutions for public health problems. A methodology is being developed by which active participation with clinicians guides patient-based research. This model must be widely practiced in India to achieve progress in improving the healthcare of its population. The group aims to take these discoveries up to clinical trials.

The group seeks to create a unique institutional environment to conduct multi disciplinary research that translates scientific and technological advancements into innovations which will not only improve public health but also contribute immensely in the areas such as agriculture, energy, and environment.

IIT Indore is recognized for its science and technology research and offers many opportunities for interdisciplinary collaborations and involvement with various departments and research centres including the disciplines of Computer Science and Engineering, Electrical Engineering, Mechanical Engineering, Physics, Chemistry, Mathematics, Humanities, and Social Sciences. Biosciences and Biomedical research will be one of the thrust areas at IIT Indore.

Facilities

IIT Indore has many unique state-of-the-art laboratories in Chemistry, Physics and other Engineering departments. Such laboratories are also being built for Biosciences and Biomedical Engineering research. Additionally, the faculty, postdoctoral fellows, research scholars, and staff have access to the Institute library and e-resources- a combined collection of over 15,500 books and journals. Moreover, the Institute's 'Sophisticated Instrumentation Centre' (SIC) (equipped with Single Crystal X-ray Diffraction, Nuclear Magnetic Resonance, Atomic Force Microscopy, Mass Spectrometry, Elemental Analysis, and Single Molecule Imaging and Spectroscopy facilities) provides a unique opportunity to access these equipments for our research.

Currently, BSBE group have a Cell Culture Facility with Class II A2 biosafety cabinets, fluorescence microscopes, electroporator, CO₂ incubators, LN₂ storage. Additionally, we have wet laboratories for performing Molecular Biology, Biochemistry and Microbiology experiments that includes Real time PCR, 96 well plate reader, gel doc, etc. Moreover, we set up a Sophisticated Instrumentation Centre with the following Sophisticated Instruments:

1. FACS Sorter [BD FACS AriaIII Fusion - 4 laser]
2. FACS Analyser [BD LSRFortess - 5 laser]
3. Confocal Microscope [Olympus including FLIM (fluorescence correlation spectroscopy), FCS (fluorescence correlation spectroscopy), Multi-photon emission imaging, and Mai Tai Femto-second laser]
4. Proteomics facility [AKTA avant, Isoelectric focusing, 2D gel electrophoresis]



Confocal Microscopy



FACS Facility



Isoelectric Focusing



2D Gel Electrophoresis



Gel Doc. System



Discovery Studio

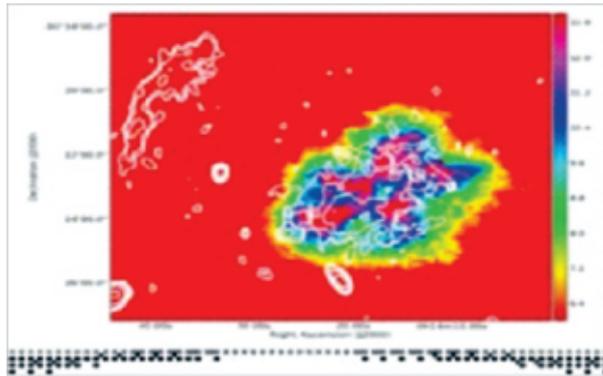


AKTA Avant

Key Research Areas

- Bio-sensors and Bio-electronics
- Biomedical Signal Processing
- Biofluid mechanics, CFD and Heat Transfer, Blood flow analysis, Non-Newtonian fluid flows
- Biological Networks
- Biophotonics
- Cancer Biology
- Chromatin structure and gene regulation
- Cytoplasmic flows
- Detection and role of delay in large extended systems
- Disease spreading, co-evolution, and adaptation
- Drug delivery systems, near-infra red fluorescence, nuclear Imaging, and bio-conjugate chemistry
- Human factors
- Molecular Biology
- Molecular Immunology
- Photo-acoustic microscopy for biomedical applications
- Photothermal response and photothermal imaging Design, synthesis and diagnostic applications of new targeting ligands for cancers and inflammatory diseases
- Raman imaging and Spectroscopy
- Systems Biology
- Somatic hypermutation of immunoglobulin genes
- Spectral analysis of gene expression profile of zebra-fish under various toxic/environmental perturbation
- Spectral properties of directed networks
- Synchronization of coupled dynamics on networks and its application to neurosciences
- Synthesis of Inhibitors for drug targets
- Metals in biology

Discipline of Astronomy, Astrophysics and Space Engineering



From the HoD's Desk



Dr. Abhirup Datta

Associate Professor
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“We are what our thoughts made us” - Swami Vivekananda

The Discipline of Astronomy, Astrophysics and Space Engineering has expanded significantly from such a thought and expanded significantly from 2015 and in the last academic year. I am happy to report that our strength has grown to seven permanent faculty members, one Ramanujan Faculty Fellow and twenty-five PhD research scholars.

The number of external sponsored projects in the discipline has shown an equally significant growth, with projects ranging from DST-SERB Early Career Research, DST-EMR and CSIR-EMR projects, ISRO-sponsored projects exploring capabilities of NaVIC, to international collaborations supported by two SPARC grants, one ASEM-DUO grant, one MATRICS and one Max-Planck Partner Group funding. This has led to DAASE being involved in major indigenization efforts in Remote Sensing, Space Applications, Machine Learning, simulations, big data analysis and Space communications / radio frequency instrumentation.

This year we saw the graduation of our first M.Sc. Astronomy batch. This is a unique program in India. There are lots of achievements of the seven students who graduated in this first batch. One of them has published his M.Sc. research in a major international journal. A few graduating M.Sc. students have already been admitted to some of the best International Universities and Institutes which shows the quality of the students as well as the strength of the guidance and mentorship from our faculty members.

The year 2019-2020 also saw a steady rise in our Outreach events. Three skywatch events were organized, as well as two Solar Eclipse events in 2019-20. We continue our strong collaborations with Nehru Planetarium, New Delhi and IUCAA, Pune. IIT Indore also host.

DAASE IIT Indore is now involved in the following major national and international projects:

1. ISRO NaVIC Constellation for Navigation and Atmospheric Studies.
2. Square Kilometre Array (SKA)
3. Cherenkov Telescope Array (CTA)
4. ISRO Astrophysics Space Mission of SEAMS

Faculty members of DAASE are also looking forward to strengthening and advancing their collaborations with other departments within IIT Indore through several new initiatives like Technology Innovation Hub and several focused Centres.

We look forward to the coming year as this will see the first batch of PhD students from our department to graduate. These are exciting times ahead. As always, we wish to continue with and build on our successes from last year.

“Excellence... is not an act, but a habit.” —Aristotle

Major awards and achievements

6. Dr Abhirup Datta is Science Co-Chair of International SKA CD/EoR Science Working Group since January 2020.
7. Dr Bhargav Vaidya was Invited as a Plenary Speaker at the Conference organized by Astronomical Society of India in February 2020.
8. Dr Amit Shukla's publication in Nature Communications: Gamma-ray flares from relativistic magnetic reconnection in the jet of the quasar 3C 279, Amit Shukla, K. Mannheim, accepted for publication in Nature Communications, 17 July 2020 (In press).
9. Mr. Soumen Datta, Ph.D. student under Dr. Saurabh Das, has been awarded the prestigious URSI Young Scientist Award in Union Radio Scientifique Internationale (URSI) GASS 2020, Rome, Italy.
10. Anchal Saxena, an M.Sc. student from the discipline has published his M.Sc. project outcome as an article in the Monthly Notices of the Royal Astronomical Society (an impact factor 5.5 journal) titled Impact of dark matter models on the EoR 21-cm signal bispectrum, Anchal Saxena, Suman Majumdar, Mohd Kamran, Matteo Viel. DOI: 10.1093/mnras/staa1768. This is the first journal publication by an M.Sc. student of the discipline.

Outreach Activities

- Solar Eclipse Observation event, June 21, 2020 Despite the lockdown due to Covid-19, faculty members of DAASE, led by Dr. Shukla and Dr. Chakraborty, live-streamed the solar eclipse event for the IIT Indore community
- National Science Day, February 28, 2020
- Lectures given by Dr. Datta, Dr. Shukla and Dr. Chakraborty at the Winter School in Observational Astronomy at the Varahamhir Astronomical Observatory, Dongla Ujjain held from 29th January to 4th February 2020 organized by MPCST
- Popular talk on astronomy: Searching for life in outer space by Erik Zackrisson, Uppsala University, Sweden on 30th January 2020
- Celestial Silhouette [Solar eclipse observation], December 26, 2019
- Astronomy outreach and night skywatch event by the DAASE on October 18, 2019. This was attended by 30 students from The Shishukunj International School alongside many from the IIT Indore community.
- Visit by school students from local villages and government schools under Unnat Bharat Abhiyan, 05, July 2019. Lectures and demonstrations by DAASE members.
- Guest lectures by DAASE faculty members during Astronomical Telescope Making Workshop organized by Vigyan Prasar at Kendriya Vidyalaya-I, Bhopal on 22nd June 2019.

International Affairs Update

IIT Indore is rapidly expanding globally with an aim to internationalize its teaching and research portfolio. Currently, we are collaborating intensely with countries across North America, Europe, Asia, and Oceania. In continuation to the previous year, this year we had notable progress on three fronts. First, we were successful in recruiting and hosting many international students in our degree programs (from ASEAN and SAARC regions). Second, we secured multiple grants from our Ministry of Education, which is feeding well into our internationalization endeavors. Third, we expanded our footprint further in Europe.

Recruitment of Foreign Students

Continuing the upward trajectory in recruiting foreign students in our degree programs, in 2019-20, we hosted 03 international students who pursued their Master's degrees in various disciplines at IIT Indore. These students were from SAARC nations (Bangladesh and Nepal) and joined us through the Study in India (SII) program.

This year, we also took a leap forward in recruiting 02 international PhD students (from Vietnam) under ASEAN Ph.D. Fellowship program. These students would start their studies in IIT Indore during the upcoming Autumn 2020 semester.

Although IIT Indore has been hosting foreign internship students since its inception, this past year was path breaking because we hosted 06 Thai exchange students who took regular courses as well. This has helped us establish our brand in ASEAN countries, and specifically Thailand

MHRD Initiatives

GIAN, VAJRA, SPARC and ASEM-DUO are the recent Ministry of Education initiatives that aim to improve the research and teaching ecosystem of India's higher education. In the year 2019-20, a substantial number of such projects were awarded to IIT Indore (see below).

1. GIAN Courses - 07
2. VAJRA Fellowships - 02
3. SPARC Projects - 09
4. ASEM-DUO Fellowships - 06

European Collaboration

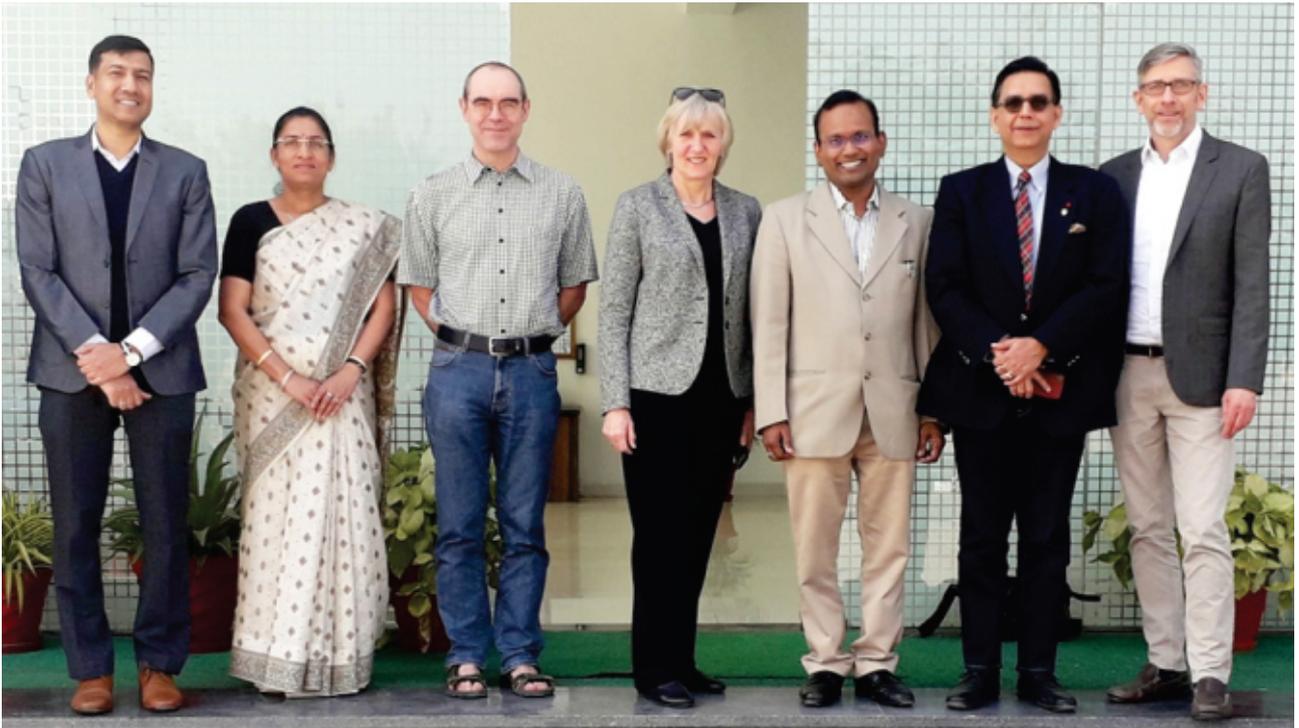
Our already strong links with Germany were strengthened this year by the successful completion of the first-year of IIT Indore - LU Hannover joint DAAD project (in Chemistry, Physics, Computational Science and Environmental Biotechnology). In this context, two India level events were organized at IIT Indore as well (Seminar on Internationalization of Higher Education and Winter School in Computational Science). We also established new links with University of Konstanz in Germany.

We led all Indian institutes in the Indo-French Knowledge Summit 2, which was organized in Lyon, France in October 2019. Here, we signed an MoU with INP Toulouse as well. Our Italian collaboration kicked off successfully by signing of a MoU with University of Florence.

MoU Signed

In the last one year, IIT Indore signed various MoU with the globally reputed institutes and universities as below.

1. Toulouse Institute of Technology, France (INP Toulouse).
2. University of Florence, Italy.
3. University of Technology Sydney, Australia (UTS).
4. RMUTP, Thailand.
5. Thammasat University, Thailand.



Visit of faculty members from University of Konstanz and LU Hannover, Germany (February 2020)



Visit of International Office team from LU Hannover, Germany (December 2019)



Visit of faculty members from Thammasat University, Thailand (December 2019)



Visit of students from Thammasat University, Thailand (December 2019)

Research & Development Report

IIT Indore envisages the convergence of traditional disciplines as the key to accomplish the previously unimaginable. With this foresight, IIT Indore has been promoting inter-disciplinary research programmes focusing on basic and applied research, technology development and innovation. This vision has helped the institute to excel in all spheres of science, engineering, and humanities and social sciences.

From academic to outreach programmes, research is at the heart of IIT Indore's vision to accomplish the previously unimaginable. Thus, while focusing on the basic and applied research IIT Indore has been promoting inter-disciplinary research programmes to further stimulate technology development and innovation. This vision has helped the institute to excel in all spheres of science, engineering, and humanities and social sciences.

A key competency of IIT Indore is research driven academic programme as it forms a core component of the undergraduate and postgraduate teaching. IIT Indore has consciously promulgated the idea of involving undergraduate students in forefront research projects. This led to the initiation of a formal undergraduate research scheme, Promotion of Research and Innovation for Undergraduate Students (PRIUS).

Research at IIT Indore has been recognized at both international and national level. Faculty members and scientists are actively involved in several key international projects and joint collaborations with research organizations in Japan, South Korea, Russia, Portugal, France, Germany, UK, USA, and many other countries. The institute has been successful in securing 331 externally sponsored research projects with a sanctioned amount of Rs. 218 Crores.

During the year 2019-20,

Sl No	Subject	Numbers
1	National and International conferences, workshops, GIAN programs and research-based courses have been organized	~45
2	Total Research Publications till date	2740
3	Total Research Papers during 2019-20	344
4	Total Conference Articles till date	854
5	Total Conference Articles during 2019-20	48
6	Total Patents filed till 2019-20	50
7	Total Patents granted	01
8	Total Externally Sponsored Research Projects till date	331
9	Total Externally Sponsored Research Budget	118.22 Cr
10	NMICPS-TIH Project	100 Cr

Research Highlights and achievements of Faculty Members (2019-20)

1. The research group of Dr. Gourinath Banda has successfully developed the Hard-Real Time Kernel in Rust Programming Language based on HARTEX Architecture. The development team consisted of Mr. Kanishkar J (a final year CS undergrad) and Dr. Gourinath Banda. The kernel is named as HaRSaRK_RS, an acronym for "HARdSAfe Real-time Kernel in RuSt language". It is available as an open source project and product for download via GitHub. It is at TRL 4.
2. The research group of Dr. Gourinath Banda has demonstrated the application of state-of-the-art simulator's in developing OEDR module for autonomous vehicles. The development team consisted of Mr. Souvik M and Mr. Nikhil TV and was supervised by Dr. Gourinath Banda. This work received support from the German company IPG in the form of extended license to their state-of-the-art simulator called "IPG CarMaker". This product is a first of its kind at TRL 3 selected for showcasing on IPG from academia towards their "Apply & Innovate – TECH WEEKS 2020".
3. The startup DFPL has sponsored a Bachelor dissertation project which resulted in a framework that provides critical data collection and dashboard infra that enables efficient decision making to impacting resource utilization to crop production. The team for this work consisted of Mr. Raghav Mahajan and was supervised by Dr. Gourinath Banda. This product is hosted on GitHub; being proprietary, it is not made open source. It is at TRL 3.
4. Dr. Gourinath Banda has signed an MoU with the company, DFPL, which is a startup that is building an ecosystem for efficient farming by deploying the state-of-the-art technologies such as IoT frameworks and data streams. This MoU has resulted in sponsorship for a Bachelor's dissertation project of 2019-2020 final year student Mr. Raghav Mahajan.
5. Samsung Innovation Award 2019: A project entitled "Fingerprint Spoof Buster" of Ram Prakash, Ashwini Jha, and Ashutosh Anshul, which was mentored by Dr. Somnath Dey received Merit Award in November 2019.
6. Dr. Shaibal Mukherjee received 2020 DUO-India Professor Fellowship Award to visit Linköping University under Bilateral Exchange of Academics Program.
7. Dr. Saptarishi Ghosh awarded as one of the 2019 Outstanding Reviewers of IEEE Antennas and Wireless Propagation Letters.
8. Dr. Saptarishi Ghosh received the prestigious Matsumae International Foundation (MIF) research fellowship for visiting Tokyo Institute of Technology, Japan.
9. Prof. Vimal Bhatia received IETE-ProfSVC Aiya Memorial Award 2019.
10. Prof. Neelesh Kumar Jain appointed Associate Editor, International Journal of Precision Technology (Inderscience).
11. Dr. I A Palani conferred as Member Institute of Engineers, India.
12. Dr. Santosh Kumar Sahu inducted as Life Member, Indian Society for Heat and Mass transfer (ISHMT).
13. Dr. B K Lad received Best Technology Development Award of IIT Indore 2018, eRespirocare.
14. Dr. Shailesh I Kundelwal whose Biography listed in Who's Who in the World (International).

15. Dr. Neelima Satyam elected as Editor of Special issue on "Landslide: Forecasting, Assessment and Mitigation", Indian Geotechnical Journal, Springer 2020.
16. Dr. Sandeep Chaudhary elected as Chair of Standing Committee 1 of Asian Concrete Federation.
17. Dr. Guruprakash, Certificate of outstanding contribution in reviewing by Journal of Reliability Engineering and system safety (May, 2018).
18. Dr. Manish Kumar Goyal Awarded American Society of Civil Engineers (ASCE's)-Visiting International Fellowship 2019.
19. Dr. Biswarup Phatak received DUO-India Professor Fellowship Award, 2020.
20. Dr. M Tanveer Guest Editor (Associate Editor) of Special Issue on "Robust Data Analysis and Its Applications" in Annals of Operations Research, Springer. [SCI Indexed with Impact Factor 2.58].
21. Dr. M Tanveer Associate Editor of IEEE SMC 2020.
22. Dr. M Tanveer Guest Editor (Associate Editor) of Special Issue on "Randomization-Based Deep and Shallow Learning Algorithms" in Applied Soft Computing, Elsevier. [SCI Indexed with Impact Factor 5.47].
23. Dr. Parasharam M Shirage Awarded Materials Research Society of India Medal 2020.
24. Dr. Rupesh Devan DUO-India Professor Fellowship Award from ASEM-DUO, S. Korea. (2020).
25. Dr. Ruchi Sharma elected as Member, Drafting Committee for Science, Technology, and Innovation Policy (STIP 2020), DST, GoI.
26. Dr. Rajesh Kumar joined as Editor in international journal "IET Nanodielectrics" published by John-Wiley-2020.
27. Dr. Rajesh Kumar-Fabrication and Investigation of Electrochromic Electrodes for Improving Device Performance (Funded ~ 30Lakhs INR by SERB, GOI).
28. Dr. Rajesh Kumar Awarded "Best technology Development award-2020" by IIT Indore for development of "Electrochromic Heat Shield: a Cool device".
29. Dr. Raghunath Sahoo has been elected as a Fellow of Institute of Physics, United Kingdom (FInstP). This highlights a very high level of achievement in physics and an outstanding contribution to the profession. FInstP is the highest level of membership attainable within Institute of Physics, UK and is for those with a degree in physics and who have made a significant impact on the field of physics. Dr. Sahoo has been making a pioneering contribution to the field of Physics and High-energy Physics in particular. He is the principal investigator and team leader of the ALICE experiment at the European Laboratory for Nuclear Research (CERN), Geneva, Switzerland. He is also leading the CBM experiment at Darmstadt, Germany. With the training of almost 58 PhD/Postdocs/MSc (Research)/BTech students and handling externally funded research grants to the tune of Rs. 5 Crores, Dr. Sahoo is a leading high energy physicist in India.
30. Dr. Pankaj Sagdeo-awarded as a valued contributor to the International Centre for Diffraction data in recognition of significant contribution of 1 pattern to the powder diffraction File-release 2021.

Sophisticated Instrumentation Centre (SIC), IIT Indore: A National Facility

Sophisticated Instrumentation Centre (SIC) was established in September 2011 with institute funding to expedite research programs at IIT Indore. The SIC mission is to support and foster research efforts in Science and Engineering at IIT Indore by providing state-of-the-art instrumentation and ancillary equipment, and expertise in its use and application. The SIC is equipped with Single Crystal X-ray Diffraction, Nuclear Magnetic Resonance, High Resolution Mass Spectrometry, Elemental Analysis, Single Molecule Imaging Spectroscopy and other Spectroscopic facilities together under one roof to provide the highest quality data for analysis to research groups and students. With the existence of excellent facilities and high level of expertise, SIC offers analytical services within the Institute as well as for external organizations.

SIC has now emerged as one of the first centers in central India providing extensive support to users across the country. It is also thriving to become a self-sustained center by generating funds from services provided to users from academia and industry.

A major advantage of SIC is its accessibility to students within the Institute, a very healthy ratio of students to the time availability on instruments.

The SIC instruments strengthens the following research areas: Fundamental Research in Inorganic Chemistry, Organic Chemistry, Organometallic Chemistry, Various aspects of Material Science, Bio Science and Engineering including work on Biosensors, Materials Science and Engineering, and Condensed Matter Physics.

Recently many new facilities viz. online form submission and dissemination of data, revamping of safety and security of the center and hands on training of students for equipment like single crystal X-ray crystallography are introduced. Further hands-on training workshop for researchers has been planned which is going to be conducted once the pandemic situation improves.

Some Major Facilities

X-Ray

- Single Crystal X-ray Diffraction Facility (SCXRD)
- Powder XRD (PXRD)
- X-ray Absorption Fine Structure (XAFS)
- Energy Dispersive X-ray Spectroscopy (EDS/EDX)
- Wavelength Dispersive Spectroscopy

Spectroscopy

- Nuclear Magnetic Resonance (NMR)
- Fourier Transform Infrared Spectrometer (FT-IR)
- Time Correlated Single Photon Counting (TCSPC)
- Circular Dichroism (CD)
- Photo Luminescence (PL)
- Raman Spectroscopy
- UV Visible Spectrometer
- UV VISNIR
- Spectrofluorometer

Microscopy

- Scanning Electron Microscopy (SEM)
- Single Molecule Microscopy
- Confocal Laser Scanning Microscopy (CLSM)
- Atomic force Microscopy (AFM)

Chromatography

- Liquid Chromatography and Mass Spectroscopy (LC-MS)
- Gas Chromatography Mass Spectrometer (GC-MS)
- High Performance Liquid Chromatography (HPLC- Reversed phase)
- High Performance Liquid Chromatography (HPLC-Chiral)

Electro-Analytical

- Cyclic Voltammetry
- Spectroelectro Chemical Cell (SEC)

Thermal Analysis

- Thermogravimetric Analyzer (TGA)
- Differential Scanning Calorimetry (DSC)

Elemental Analyzer**BET Surface Area Analyzer****Liquid Nitrogen Plant****DIBSD****Other Instruments**

- Polarimeter
- Lyophilizer
- Rheometer
- Langmuir-Blodgett film deposition system

Summary of Major Instrument Usage

Instruments	Internal Samples	External Samples
SC-XRD	240	0
NMR	10743	155
LCMS	9342	97
SEM	2273	23
AFM	1735	14
GCMS	1563	13
Confocal Microscopy	872	27

Apart from these the SIC has several other instruments enlisted at

<http://www.iiti.ac.in/sic/index.php>

- | | |
|--|--|
| 1. BARC, Mumbai | 20. Pinnacle Biomedical Research Institute (PBRI), Bhopal |
| 2. Raja Ramanna Centre for Advanced Technology (RRCAT), Indore | 21. Devi Ahilya Vishwavidyalaya, Indore |
| 3. TIFR Hyderabad | 22. Shri GovindramSeksaria Institute of Technology and Science, Indore |
| 4. IIT Bombay | 23. North Maharashtra University, Jalgaon |
| 5. IIT Madras | 24. Vikram University, Ujjain |
| 6. IIT Mandi | 25. Mewar University, Rajasthan |
| 7. IIT Patna | 26. RD University, Jabalpur |
| 8. IIT Gandhinagar | 27. Central University, Sagar |
| 9. NIT Rourkela | 28. Central University, Rajasthan |
| 10. NIT Allahbad | 29. Guru Ghasidas Vishwavidyalaya Central University, Bilaspur |
| 11. MA-NIT Bhopal | 30. SRM University, Chennai |
| 12. NIPER Mohali | 31. University College, Trivandrum |
| 13. Indian Institute of Himalayan Bio-resource Technology (IHBT), palampur | 32. Tumkur University, Karnataka |
| 14. Banaras Hindu University, Varanasi | 33. Thapar University, Patiala |
| 15. Guru Nanak DevUniversity, Punjab | 34. Punjab University |
| 16. GITAM University, Visakhapatnam | 35. Awadhesh Pratap Singh University, Rewa |
| 17. Jammu University Jammu | 36. University of Hyderabad, Telangana |
| 18. MS University, Baroda | 37. Pondicherry University, Puducherry |
| 19. Savitribai Phule Pune University, Pune | |

International Academic Institutes:

1. Universität Stuttgart, Germany
2. Jehangirnagar University, Bangladesh
3. Dhaka University, Bangladesh
4. Taibah University, Medina, KSA

Industries:

1. Gharda Chemicals
2. Glenmark Pharmaceuticals Delhi University
3. Piramal Healthcare Mumbai
4. Jubilant Biosys Ltd.
5. Lupin Pharmaceutical Pvt. Ltd.
6. Mimani Wires Pvt. Ltd.
7. Choksi Labs Ltd.
8. UV Resins Pvt. Ltd.
9. Impress Chemicals Pvt. Ltd.

10. Syntochem Pvt. Ltd.
11. Symbiotec Pharma Lab
12. Medilux Pharma, Indore
13. Emcure. Pune
14. Reliance Industries Ltd.
15. Navin Fluorine International Ltd., Dewas
16. SRF Ltd., Indore
17. M.P. Dye Chem., Indore
18. Rupak Enterprises, Indore
19. Sprint Testing Solutions, Mumbai
20. Rajveer Chemicals, Indore
21. Shree Pacetronix Ltd. Indore
22. Keva, Mumbai
23. IPCA, Ratlam
24. ATUL Ltd., Valsad

Centre for Innovation, Incubation, Entrepreneurship, and Industry Relations (CIIEIR)

Centre of Innovation, Incubation, Entrepreneurship, and Industry Relations (CIIEIR) was established in 2016. CIIEIR is an umbrella setup at IIT Indore for fostering entrepreneurship and nurturing the start-ups. It administers a business incubator which provides 'Start to scale' support for technology-based entrepreneurship and facilitates the conversion of research activity into entrepreneurial ventures.

CIIEIR aims to transform knowledge and Innovation into the creation of successful innovative entrepreneurs. Mentoring and developing competitiveness, Innovation, enhancing links between Industry and students to enable them to develop emerging technology and be the best entrepreneurs.

Dr. Swaminathan Ramabadrn, Head CIIEIR, CIIEIR Committee, Dr. Kumar Gaurav (AO CIIEIR), Ms. Kavita Enamdar, are managing Incubation and entrepreneurship activities with the joint efforts of students of E-Cell. CIIEIR team reports to Professor Anand Parey, Dean of Resources Generation.

Highlights

Collaborations for Funding: -

- During the year, 12 startups ideas have been submitted by various students and faculties under the umbrella of Center for Innovation and Entrepreneurship, IIT Indore for the funding of Rs. 2.80 crore from Ministry of Micro, Small & Medium Enterprises.
- Proposal Design Center has been submitted for funding of 1.99 Crore from MSME.
- Institute has allocated funds for students for best innovative ideas.
- Collaboration has been done with Angel Investors for unlimited seed funding based upon the startup's ideas.
- Collaboration has been various banks and MSME for loan and startup funding.

Startups associated with IIT Indore: -

- | | |
|---|---|
| • Swaaha Resource Management. | • Interview Prep |
| • Chota Hospital. | • Waste Processing to natural products. |
| • Funds SMEs. | • Next Generation Flexible, Nontoxic High Efficiency Solar Cells. |
| • Consult Worrier. | • Honnect |
| • Krishakkalyan. | • Seashell Services |
| • Chain Traq. | • VLAB4U |
| • Jain Fertilizer. | • Freebird Aeospace India private limited. |
| • IRIS Heath Care | • Think -VLSI |
| • Otomotor Technologies Pvt Ltd | • IASA Immersive Acoustic spatial awareness system |
| • AI-MEDIC | • Innovations One |
| • WasteHai | • MiBi Services Pvt. Ltd. |
| • Fit'Life | • Notsurewhat Inc. DBA Bowl |
| • Smart I- Fab technology Private Limited | |
| • Local Delivery at its best | |

Support and Facilities:-

- Fully furnished air-conditioned Offices, Board Room, Conference Room.
- Wi-Fi and IT Support.
- Mentorship for Innovation, research, testing, prototyping.
- Financial aids.

Events by Entrepreneurship cell: -

- E-Summit.
- Crazy Ideas.
- Smart India Hackathon.
- Market Simulation.
- Enrollment of Startups.
- Entrepreneurship Talk Series under the umbrella of Back to the Institute program.

Webinar organized during Covid-19 situations: -

1. Mrs. CA Vanita Rathi has delivered webinar on How to register a new company and start business.
2. Mr. Nilesh Trivedi, Officer, MSME has delivered webinar on Various Government policies for easy setup of startup.
3. Mr. CS Raj Kapadia has delivered webinar on Understanding the forms of Business Entities and procedures for registration.
4. Dr. Abrar Ali Saiyed has delivered webinar on Bright and Dark Side of Entrepreneurship.
5. Professor Sunil Shukla, Director, EDI has delivered webinar on Accelerating Entrepreneurship in New India.
6. Mr. Sandeep Bommireddi, Co-Founder, AdoNmO, Alumni of IIT Indore, has delivered webinar on Incredible Journey in Entrepreneurship.
7. Mr. Gaurav Parchani, Co- Founder, Dozee (Alumni of IIT Indore), has delivered webinar on Essentials for Entrepreneurship.
8. Mr. Pankaj Prabhakar Borker, Dy Controller of Patents and Design, RGNIPM Nagpur, Govt of India, has webinar delivered Introduction to Intellectual property right (IPR)/ Patent Process.
9. Mr. Tushar Rokade, Co-founder, Strategy & Sales head at Artpillz, has webinar delivered Active Inertia & the road from ideas to execution.
10. More than 25 Webinar organized jointly with Ministry of Micro, Small and Medium Enterprises on various topics.

List of Entrepreneurs of IIT Indore

- Sandeep Bommireddi, Co-founder of Adonmo.
- Jwalant Shah Co-Founder of SWAAHA Resource Management Pvt. Ltd .
- Ankit Goyal, Director of Unacademy Brands-GATE
- Rohit Nitin Joshi, Co-Founder at Kreatryx
- Gaurav Parchani, Co-Founder at Turtle Shell Technologies Private Limited.
- Rohit Agarwal, Co-Founder of SWAAHA Resource Management Pvt. Ltd.
- Ravi Shankar Founder & Director of Esmartify Private Limited & Boosters Edutech
- Shikhar Bansal Founder & Director at Boosters Edutech.

- Anmol Arora CEO- DocVita.
- Vikram Patel Co-Founder & CTO at DocVita.
- Venkata Sai Vamsi Penupothu Co-Founder @Runo.
- Tushar Rokade Co-Founder at Artpillz.
- Ravi Shankar, Owner of Juicilicious CAFÉ.

CIIEIR Committee:

- Dr. Swaminathan R. (Head CIIEIR)
- Dr. Santosh Kumar Vishvakarma
- Dr. Devendra Deshmukh
- Dr. I A Palani
- Dr. Manish Kumar Goyal
- Dr. Ruchi Sharma
- Dr. Gourinath Banda
- Dr. Abhishek Rajput
- Dr. Jayaprakash Murugesan
- Dr. Rajesh Kumar
- Dr. Shaikh M. Mobin
- Dr. Anirban Sengupta
- Dr. Sumanta Samal
- Dr. Kiran Bala
- Dr. Tridib K. Sarma
- Dr. Suman Majumdar
- Dr. Ashok Kumar Mocherla

E-Cell Students Team:

- Sumer Thakur
- Sudeep Kumar Patra
- Shreyas Naxatram
- Shiva Sharma
- Chirag Kothari
- Vardhan Palliwal
- Suyash Jain
- Samith Damani
- Sashikanth Gupta
- Saumya Bharti
- Likhita Kyatham
- Sriya Reddy
- Vinay Kondeti
- V. Lohit
- Sai Kumar
- Divyansh Sahu
- Ismail Malekji
- Yash Ranjan
- Yash Survana
- Nikunj Chhabra
- Ankit Pandey
- Anubhav Singh
- Desa Bipin Chandh
- Arpit Vyas
- Prince Jaiswal

Counselling Cell

1. Counselling cell has been an integral part of IIT Indore since its inception in December 2011. The function of this cell is to offer supportive and conducive environment for students wherein he/she can discuss personal issues or academic challenges and seek help from counselling committee members. With primary focus on prevention of mental health issues- prevention of suicide and chronic mental health problems, counselling cell works for early identification and early intervention for various mental health issues in students.
2. The team of Counselling Services was initially headed by Dr. Vinod Kumar, Assistant Professor in MEMS till January 22, 2020 and subsequently is headed by Dr. Pavan Kumar Kankar, Associate Professor, Mechanical Engineering. He is assisted by Ms. Monika Gupta, Counsellor. In addition, Counselling Cell comprises of a visiting consultant psychiatrist, Dr. Ashutosh Singh (MBBS, DNB Psychiatry). The Institute also has a counselling committee consists of one faculty member from each discipline as faculty counselling coordinators and student representatives from Ph.D., P.G. and U.G. as Student Counselling Coordinators. The committee members provide guidance and advise on counselling related matters to the students of the respective discipline.
3. Counselling cell undertakes various activities as mentioned below:
 - (a) Individual counselling sessions are carried out by the cell to assist the students in dealing with a wide range of concerns; be it academic, personal, emotional, family or peer related as well as wide range of psychological concerns including clinical depression, anxiety spectrum difficulties, suicidal tendencies, difficult personality traits.
 - (b) The student mentors and Gymkhana members also help freshers by extending their helping hand both for academic and non-academic concerns. With the aim to foster a healthy stress-free environment for the student community, the Counselling Cell oversees a body of students, who are in the penultimate year of their B.Tech. There are 15 students presently who overlook the working of the Mentorship Group and guide sophomore mentors who in turn guide the freshers on joining IIT Indore and throughout the year.
 - (c) Creating a good liaison with various departments and services at the Institute to facilitate the implementation of the intervention plan.
 - (d) Working towards creating a strong referral system as a basis for enhancing mental health services, where students are being referred by academic office, medical unit, faculty advisors, sports and security officers, wardens and hostel office, parents and friends, apart from walk in students who approach the Counsellor on their own.
 - (e) Facilitation of a meeting during orientation program involving fresher students and their parents, faculty advisors, student mentors. The faculty advisors regularly interact with the assigned students and guide them for academic concerns. The students are further referred to the student Counsellor in case of student shows any signs of distress.
 - (f) Facilitation of various policies for students having academic concerns.
 - (g) Organise expert talks and activities to create awareness on mental health issues and enhancing positive well-being.
 - (h) De-stigmatising counselling services to a considerable extent and enhancing the positive perception of the cell.

4. The events organised by Counselling Cell are as follows:

- (a) Interactive Meeting- An interaction of BTech 2019 batch students and their parents with respective faculty advisors and student mentors was facilitated by counselling cell during orientation program on July 24, 2019. The meeting introduced the students with their faculty advisors and mentors who would take care of the students during their stay at the Institute.



- (b) Orientation - Orientation of Counselling Cell for 2019 batch U.G. and P.G./ PhD students was conducted on August 10, 2019. During the session, Ms. Monika Gupta, Counsellor discussed the functions of counselling cell services and its structure at IIT Indore. The process of counselling was also explained to the students.



- (c) Mentorship Training Session- IIT Indore has a student mentorship program, under which volunteers from the second year are assigned a few first-year students to guide and help them get acquainted with the campus environment. Not only does this establish long-lasting friendships, but it also helps the first-year students explore the campus life, more importantly, themselves. The Counselling Cell, organised a training session on mentorship on September 9, 2019 by Dr. Satasuryaa, an alumnus of IIM Calcutta and the founder-chairman of the National School of Leadership, India's first school dedicated to higher education in Leadership Sciences, to help the students mentors get acquainted with their duties, responsibilities and their import in the lives of students they mentor. Narrating incidents from his past, he emphasised the significance of mentors in shaping his life.



- (d) Mental Health Awareness Programme – Celebrating the 10th Anniversary Year Celebrations of IIT Indore, the 'Mental Health Awareness Programme' was organised by the Counselling Cell on October 19, 2019. The programme was garnered by insightful expert talks of Dr. Alok Bajpai, eminent psychiatrist from Kanpur and Dr. Ashutosh Singh, consultant psychiatrist from Indore along with a multitude of competitions organized by the students. From lectures on training the mind, identifying and curbing depression to the creative flare of posters and essays, no stone was left unturned to break the stigma surrounding mental health. Movie and street play by the students pertaining to the issue further drove the message home.



Learning Resource Center, IIT Indore LRC at a Glance Collection (As on 31.03.2020)

Books	E-Journals	E-Books	Print Journals	Magazines	Newspapers
36,283	8,550+ (IITI subscribed +ESS resources)	7,600 approx.	01	26	11

Books added during FY 2019-20: 946

Books Usage: (April 2019 to March 2020)

Books Issued	Reading Room Usage per month
27,369	4000 users p.m. approx

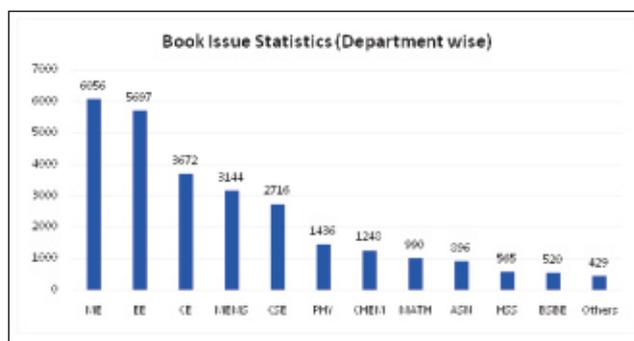


Figure 1. Book Issue Statistics (Department wise) (Apr. 2019-Mar. 2020)

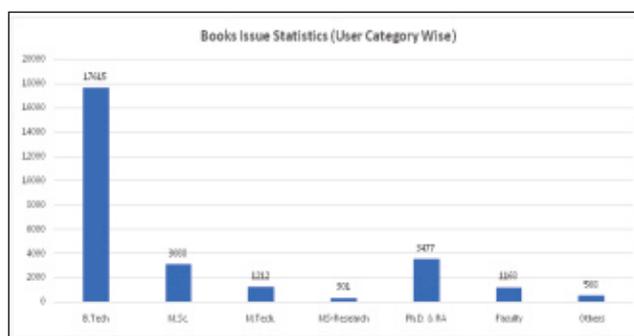


Figure 2. Book Issue Statistics (User Category Wise) (Apr.2019 to Mar.2020)

Periodicals and Newspapers (in print): At present, the LRC subscribes to 1 Journal, 26 Magazines, and 11 newspapers in the print format. All other journals are available in the electronic format.

Electronic Resources: Access to electronic information resources is critical for research. The LRC has developed a collection of electronic resources which include journal articles, research papers, books, and other resources. E-journals in various disciplines published by reputed societies such as American Mathematical Society, American Chemical Society, American Institute of Physics, American Physical Society, Electrochemical Society, Royal Society of Chemistry and IEEE are subscribed by the Library. Journals published by Elsevier, Springer and Taylor & Francis are also available. The e-resource collection includes 7600+ e-books from various publishers. The complete list of e-resources with hyper links is available on the LRC website.



Library Services:

At present, the Library offers the following services:

- **Lending Facility:** Undergraduate students can borrow 8 books for 15 days, where as PhD. students can borrow upto 8 books for one month. Faculty members can borrow upto 40 books for a semester.
- **Overnight Lending:** Overnight lending facility is provided to students who wish to borrow a book from there served section, or have crossed their entitlement limit. Books on over night issue have to be returned by 9.30 a.m. the next day.
- **Claims/Reservations:** Users can claim/ reserve books which are issued out. Claimed/ reserved books are kept in the Library for the user for 3 days from the date of return by the previous borrower before they can be issued to the next claimant.
- **Renewals:** Books can be renewed only if there are no claims.
- **Reading Room:** The Library provides an air-conditioned and wi-fi enabled reading room with a seating capacity of 50 students. 40 PCs are available for research scholars and faculty members.
- **Inter-Library Loan & Document Delivery Services:** The Library has informal Inter-Library Loan arrangements and Document Delivery Services with IIM Indore, RRCAT Indore, IIT Bombay, GSITS Indore, etc. Under this facility, access is provided to books or electronic materials which are not available in our Library.
- **Book Bank:** Under the Book Bank scheme, text books are provided for a semester to students belonging to the under privileged category.
- **Library Portal:** Detailed information about the Library can be accessed through the Library portal. It can be accessed at: <http://library.iiti.ac.in/>
- **Reprography Services:** Users are provided photocopies or printouts of select portions of library resources as required by them, subject to the provisions of the Copyright Act.
- **Orientation Programs:** The Library conducts orientation programs for new students to make them aware of the Library facilities and services and to help the utilize the Library resources optimally.
- **Originality Check:** The Library provides originality reports to students on their assignments and papers, using Turnitin.
- **Remote access to Library Resources:** The Library provides 24x7 access to its resources for the users of the library, using Remote Xs.

Library Automation:

ILMS: The Library has successfully migrated from Libsys 7 to Koha (an Open Source ILMS software) which provides new features and functions for the automation of all its activities and services. Users can also browse the collection by using the Web OPAC (Online Public Access Catalog).

CCTV Surveillance: The Library has installed high tech cameras to ensure the safety and security of its users and resources.

Bar Coding: Bar Code Technology is being used for issue/return of books at the Circulation Counter. RFID implementation: RFID implementation is under consideration in the Library.

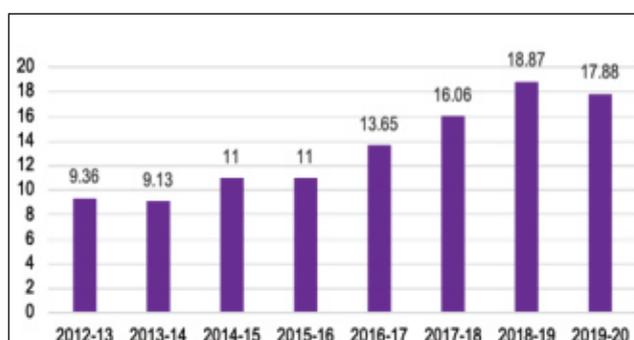
QR Codes: The Library uses QR codes to provide quick access to users to the Library website, Library OPAC, and recommendation forms for books and journals.

Trial Access: The Library requests trial access to various e- resources from publishers so that users can get an opportunity to use and evaluate there source. After the trial is over, the Library Committee discusses the possibility of subscription based on there commendations/feed back received from users.

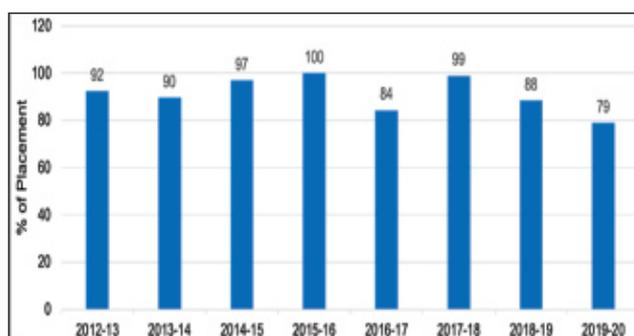
Other Activities: The Library organizes various Author Workshops/ Training Programs/ Informative Sessions for E-Resources and also for Print Resources. The most recent Author Work shops were conducted on August 27th, 2019 in collaboration with Elsevier and on September 19th, 2019 in collaboration with Springer.

Placement Section

- The placement office has always strived to build a strong mutual association with the recruiters and create better opportunities for the students. The section was headed by Dr. Prabhat Kumar Upadhyay till May 2019 and subsequently by Dr. Abhishek Rajput till date, with Ms. Mamta working as an Assistant Placement Officer. Students were offered various job roles in areas/ sectors such as: Automobiles & Steel, Software Engineering & Technology Consulting, Analytics, Graduate Engineering Trainee, Oil & Gas, Communication & Digital, Finance & Banking, Construction, Teaching etc.
- Jobs with attractive packages were offered from various companies which mainly included DE-Shaw, Goldman Sachs, Microsoft, Salesforce, AQR Capital, Deloitte, Arcesium, GAIL, IOCL, HPCL, Barclays, Code Nation, Razorpay, Analog Devices, Tata Digital, Microchip, Arcelor Mittal, Book My Show, Fractal Analytics, Dunzo, JIO, Commvault, MAQ Software, Clumio, Oyo, PayPal, United Health Group, Accolite, HSBC, Secure Meters, Strand Life Sciences, Math Works, Cognizant, L&T, Quantile Analytics, Futures First, Maruti Suzuki, NXP Semiconductors, John Deere, Production Modeling India, Mentor Graphics, Tata Steel, NeXHS Renewables, ZS Associates, CGI, Deqode, Raam Group & more.
- The average salary package is INR 17.88 lakh p.a. and highest package received is INR 47 lakh p.a. (domestic). Approximately 175 students actively participated in campus placements activities out of which 138 got placed and 156 job offers were received. Many companies offered project/ research work opportunities which includes Texas Instruments, Qualcomm, Clumio, Water Resource Department MP, Strand Life Sciences, Irage Capital & many more. The highest stipend offered was 1.5 lakh per month. Approximately 10% of students opted for higher education at IIMs, IITs, and universities abroad while others are inclined to prepare for competitive exams/ other plans.



Average Package (INR, LPA)



Placement Session

Administration Report

1. General Administration:

1.1 About the Organization:

IIT Indore is one of the second generation IITs. It was established in 2009 as an autonomous statutory organization functioning within the Institutes of Technology Act, 1961, as amended by The Institute of Technology Act, 2012. The IITs are administered centrally by the Council of IITs, the apex body established by the Government of India (GoI) to coordinate the activities of these Institutes. The Ministry of Education, GoI is the Chairperson of the Council. Each IIT has a Board of Governors responsible for overall governance, superintendence, and control.

The Senate is the apex body which decides on academic policies and matters of the Institute and approves and administers curricula, courses, examinations, and declaration of results. It also appoints other Committees to look into specific academic matters arising from time to time. The teaching, training, and research activities of various departments at the Institute are constantly under review to improve both facilities and standards. The Director of the Institute is also the Chairman of the Senate.

The BoG is assisted by the Finance Committee on financial matters and by Building and Works Committee for Campus Development matters. The composition of these committees is given separately in Appendix.

1.2 Staff Position:

As on 30th September 2020, 115 non-teaching staff have been appointed, as per the details given in the table below.

Group 'A' Officers - 18 Technical staff - 41

Other Administrative Staff - 56

Number of non-teaching staff members appointed during the year is as under:

Non-teaching staff - 30

No. of staff were relieved due to resignation/ other reasons - 07

1.3 The list of staff appointed between 1st April 2019 and 30th September 2020

SN	Name of Employee	School / Discipline / Centre	Position / Designation	Date of Joining
1.	Ashish Chawda	Health Centre	Office Incharge	08-May-19
2.	Vijayendra Shastri	Finance & Accounts Section	Executive Manager	13-May-19
3.	Pooja Dutta	Materials Management Section	Executive Manager	13-May-19
4.	Jaya Vakade	Dean of Resources Generation	Executive Manager	13-May-19
5.	Pranjal Shrimali	Civil Engineering Dept.	Lab Incharge	23-May-19
6.	Shubham Verma	Metallurgy Engineering & Materials Science Dept.	Lab Incharge	29-May-19
7.	Krishnapal Singh Tomar	Mechanical Engineering Dept.	Lab Incharge	29-May-19
8.	Nilesh Jadhav	Materials Management Section	Manager	31-May-19
9.	Chainika Malhotra	Dean, Infrastructure Dept.	Manager	31-May-19
10.	Kamanuri V. Srinivasulu	Dean, Research & Dept.	Manager	28-Jun-19
11.	Bindu Suresh	Academic Office	Manager	28-Jun-19
12.	Deepanshu	Administration	Manager	04-Jul-19
13.	Sandeep Gour	Mechanical Engineering Dept.	Manager (Technical)	04-Jul-19
14.	Shailendra Verma	Computer Science & Engineering Dept.	Manager (Technical)	04-Jul-19
15.	Amit Kumar Mishra	Dean, Faculty Affairs	Manager (Technical)	04-Jul-19
16.	Dhiraj Vijayvargiya	Computer Center	Manager (Technical)	05-Jul-19
17.	Sherin Jacob	Infrastructure Dept. Office	Deputy Engineer (Electrical)	09-Jul-19
18.	Murali Shankar Nair	Finance & Accounts Section	Deputy Manager	18-Jul-19
19.	Rajesh Thakre	Registrar Office	Deputy Manager	18-Jul-19
20.	Shiv Kumar Raghuvanshi	Central Stores	Deputy Manager	18-Jul-19
21.	Sahad Parammal	Dean, Administration	Manager	12-Jul-19
22.	Priyanka Tayde	Computer Science & Engineering Dept.	Deputy Manager (Lab)	22-Jul-19
23.	Ripan Ranjan Biswas	Central Library	Manager (Library)	23-Jul-19
24.	Abhay Kumar Awasthi	Academic Office	Deputy Manager	26-Jul-19
25.	Swapnil Sonp	Materials Management Section	Deputy Manager	29-Jul-19
26.	Riyanka Sharma	Astronomy, Astrophysics and Space Engineering Dept.	Lab Incharge	29-Jul-19
27.	Rohit Khatri	Administration	Deputy Manager	31-Jul-19
28.	Dushyant Pratap	Materials Management Section	Deputy Manager	14-Aug-19
29.	Gaurav Singh	Bioscience & Biomedical Engineering Dept.	Manager (Technical)	23-Sept-19
30.	Lovelesh Dave	Infrastructure Development Office	Deputy Manager (Lab)	29-Jan-20

1.4 Staff Welfare

The Board of Governors of the Institute in its 31st meeting has approved the creation of a Staff Welfare Association. It will help in introducing academic and administrative reforms in conformity with a true democratic setup, improving academic and administrative efficiency and transparent functioning of the institute. It will also ensure staff participation in the formulation and implementation of policies of the institute and helps in promoting freedom of thought, expression and action in fulfilling administrative and support responsibilities.

Convenience Store (LaFresco) running in the institute under the supervision of IIT Indore Cooperative Society is providing valuable services in delivering daily need items to the IITI community. On request basis specifically demanded items are also made available. In emergency situation the store has also started home delivery of the grocery items for the campus residents.

Institute is committed towards continuous enhancement in facilities inside the campus premises for the benefits of the community members. In the month of September 2019, the salon facility has been inaugurated inside the campus. Hygiene and other standard norms are being ensured and the rates of basic services of are being regulated by the management. In the month of March 2020 an Amul Parlor has been opened at Central Dining Facility of the institute which provides complete range of Amul products inside the campus. Apart from the above materials management team and a dedicated committee are making sincere efforts to start other basic services inside the campus.

In addition to above several food kiosks has also begun operations inside the campus and particularly at Central Dining Facility. These outlets are opened with a view to provide variety of food items as per different tastes of the students and other community members. Operational part and standardization of the items delivered at these kiosks is being closely monitored.

1.5 Human Resource Development

When an organization develops their employees, they are strengthening their assets and making them more valuable. Under human resource development activities, the Institute plans and implements programs for providing better opportunities to the technical and administrative staff to update and upgrade their knowledge and skills so that their work performance will be more effective and hence, ensuring optimum utilization of the manpower.

Institute has focused on organizing in-house workshops as well as trainings which have the following advantages:

- Allows the trainers to focus on specific areas based on the training requirements of the institute staff.
- A session full of representatives from different departments can encourage greater team work, awareness and understanding of each other's role.
- It fits around the working schedule of the staff and at a location they can come everyday.

During this financial year the staff members were also sent for training, workshop, seminars etc. in their respective areas. In addition, the institute encourages all its employees to upgrade their educational qualifications and professional skills through voluntary participation in part-time training/ degree/ diploma courses. The Institute also enables employees to seek these opportunities through in-house facilities including Library facilities, English language courses and computational facilities. A few staff members have been permitted to pursue higher studies as well without affecting their office duties

Details of Training Programme (Outside)

Name	Post Held	Training obtained from	Training/ Course	From	To
Mr. Tanmay Harsh Vaishnav	Senior Manager	Institute of Secretariat Training & Management under DoPT	Training Programme on Organizational Behavior in Government	29.04.2019	03.05.2019
Mr. Lala Ram Ahirwar	Senior Manager (Library)	Institute of Secretariat Training & Management under DoPT	Training Programme on Organizational Behavior in Government	29.04.2019	03.05.2019
Mr. Roshan Bhatia	Senior Manager	Institute of Secretariat Training & Management under DoPT	Training Programme on Organizational Behavior in	29.04.2019	03.05.2019
Mr. Rajan Thomas	Administrative Officer	Institute of Secretariat Training & Management under DoPT	Training Programme on Organizational Behavior in Government	29.04.2019	03.05.2019
Mr. Kapil Kumar Gupta	Manager (Library)	Biju Patnaik Central Library Nit Rourkela	National Conference on Advanced Automation Technologies for Next-Gen Libraries (ATNL)	20.05.2019	24.05.2019
Mr. Dushyant Pratap	Deputy Manager	National Institute of Financial Management, Faridabad	Management Development Programme on Public Procurement	16.09.2019	21.09.2019
Mr. Pradeep Agarwal	Joint Registrar	National Academy of Human Resource and Development (NAHRD), Goa	Workshop on Goods & Services Tax (GST)	23.09.2019	25.09.2019
Mr. Rajan Thomas	Administrative Officer	Institute of Secretariat Training & Management under DoPT	Training on Communication Skills	03.10.2019	04.10.2019
Mr. Harshraj Singh Chouhan	Deputy Manager	National Institute of Financial Management Faridabad	Workshop on Public Procurement	02.12.2019	07.12.2019
Mr. Sunil R. Chandanshive	Deputy Manager (Grade-I)	Integrated Training & Policy Research, New Delhi	Workshop on Public Procurement, E-Procurement, Govt. e-Marketplace (GeM)	10.10.2019	12.10.2019
Mr. Swapnil Sonp	Deputy Manager	National Institute of Financial Management, Faridabad	Workshop on Public Procurement	14.10.2019	18.10.2019
Mr. Deepanshu	Manager	Institute of Secretariat Training and Management	Orientation Training Programme on Drafting in Disciplinary Matters	06.01.2020	07.01.2020
Mr. Nilesh Jadhav	Manager	EEPC India (Engineering Export Promotion Council)	How to be successful in Export	31.01.2020	31.01.2020

Details of Training Programme (In-house)

Topics of Training	Trainer/ Instructor	Designation	Date	Officials participated in training
Training session on Finance, Accounts & works related issues	Mr. Ajay Prasad	Deputy Registrar, IIT Bombay	16.08.2019	Estate and F&A section
Induction training session for newly joined staff	Mr. Siba Prasad Hota	Registrar I/c, IIT Indore	23.08.2019	40 Staff Participated
Office procedure for lab In-charge and office	Mr. Santosh Kumar Khare	APO, RRCAT	04.09.2019	4 Staff Participated
Training session to clarify doubts on issues related to Finance and Estate Section	Mr. Dnyaneswar K. Sawalkar	Deputy Registrar (Estate Section), IIT Bombay	12.09.2019	Estate and F&A section
Lecture on compliance of labour laws and welfare measures	Mr. P. K. Bidua	Regional Labour Commissioner, Central	20.08.2019	Contractors, Service Provider & Administrative Staff Members
Training on Office Procedure	Mr. Santosh Khare Mr. Siba Prasad Hota	APO, RRCAT Registrar I/c, IIT Indore	05.10.2019	Group 'B' & 'C' employees
A. Training on Office Procedures B. Record Management	Mr. Santosh Khare Mr. Siba Prasad Hota	APO, RRCAT Registrar I/c, IIT Indore	05.10.2019	Group 'B' & 'C'
Training session on Employee Provident Fund (EPF).	Shri Amardip Mishra	Regional P.F. Commissioner, Indore	04.11.2019	Group 'B' & 'C' employees
Prevention of Sexual Harassment at Workplace	Mr. K. G. Verma	Former Joint Secretary, Govt. of India	28.02.2020	Teaching, Non-Teaching, Staff & Students
Training session on Purchase Procedures	Mr. Siba Prasad Hota	Registrar I/c	20.02.2020	All Non- Teaching Staff

1.6. Reform measures undertaken during the year inter-alia include:

- As per Govt. of India guidelines reservation policy for Economically Weaker Sections (EWSs) has been adopted consequent upon approval of Board of Governors.
- In order to streamline the functionality of Administration Section the entire matters related to faculty members has been shifted to the Faculty Affairs Office, which is working under the superintendence of Dean, Faculty Affairs.
- Inclusion of budgetary provision/limit for House Building Advances for each financial year.
- Appointment of Lab Safety Officer to ensure proper management of labs running under various disciplines and to ensure the safety measures.
- Appointment of Residential Medical Officer on short term contract to strengthen the existing Health Centre facilities.
- Efforts have been made for establishment of creche facility and opening of Kendriya Vidyalaya inside the campus.
- MoU with top hospitals in the city has been renewed timely for providing medical facilities to the institute community members.
- Institute has initiated practice of providing a link on institute website for the vacancies issued through manpower agency to ensure wide publicity and for recruiting better candidates.
- Measures have been initiated to increase transparency in working procedures as per the instructions of Central Information Commission (CIC). All Grievances / RTI have been closed in a timely and hassle-free manner.

1.7 Activities held as per MHRD instructions:

1. Celebration of International Yoga Day 2019
2. Observing the Birth Anniversary of Sardar Vallabh Bhai Patel on 31st October 2019 “Rashtriya Ekta Diwas”
 - Unity Run
 - Pledge Taking
3. Observance of Vigilance Awareness Week 2019
4. Celebration of “Constitution Day”

In-House Enlightening Sessions Organized By IIT Indore

- **Lecture on compliance of Labour Laws and Welfare Measures**

Mr. P.K Bidua, Regional Labour Commissioner (Central) was invited in the month of August 2019 to address all the contractors/staff members on Compliance of Labour Laws. He has guided the institute officials and associated contractors about the modalities in labour laws and about the statutory documentations to be maintained as a Contractor and as Principal Employer. Mr. Bidua also answered the basic queries raised by the participants. It was a knowledge enhancing session for all.

- **Training session on Employee Provident Fund**

Shri Amardip Mishra, Regional P.F. Commissioner (Gr.I) Indore was invited as a speaker for training session in the month of November 2019. Representatives from all the contractors associated with the institute including officials and staff members from Finance, Infrastructure Development and Administration section have attended the same. It covers a brief guidance about the procedures and statutory norms applicable under the EPF Act and the queries raised by the contractors were also resolved.



- **Session on Prevention of Sexual Harassment at Workplace**

A full day session was organized in the month of February 2020 wherein Mr. KG Verma, former Joint Secretary, Govt. of India was invited as an expert. The session broadly covers the Meaning of Sexual Harassment and other terms used in the Prevention of Sexual Harassment Act, Machinery for Redressal of Complaints- Complaints Committees, Appellate Authorities and Courts and it explains in brief about the Complaints, Conciliation and Action Pending Inquiry it also focuses on procedure for Conduct of enquiry by the complaints committee. Around 80 members have participated in the session.

Health Centre

The Health Centre provides dedicated health services to the Institute community. It includes outpatient, daycare, trauma and emergency medical care, and inpatient services for minor ailments.

The medical team comprises of medical officers, specialist consultants and well trained paramedical and supporting staff.

Facilities:

- OPD
- Daycare
- Trauma and emergency care
- Pharmacy
- Inpatient service for minor ailments
- Physiotherapy
- Investigation facility
- 24 X 7 ambulance services

The investigation facility includes-

- a) ECG Facility
- b) Rapid Spot blood investigation
- c) For higher evaluation- Sample collection facility

Facility up-gradation-

- Dental facility
- Speciality and super-specialty consultation O.P.D. services
- Tele-consultation facility

Preparedness to deal with Covid 19 pandemic-

As the global cases of Covid 19 were increasing worldwide in March 2020, medical team planned for various preparatory measures. Training sessions were conducted for medical staff. Preventive measures were implemented as per guidelines of Ministry of Health and Family Welfare, Government of India from time to time. Various awareness posters and online material was communicated to institute community. Training sessions of housekeeping and other support front-line employees were carried out for proper sanitization in the institute as per norms.

Data of services provided during 2019-2020

OPD cases	Trauma and Emergency cases	ECG done	In-house blood investigations	Admissions including day care
18378	605	834	997	198



Health Centre Emergency Room



Screening Gate Pharmacy



Dental OPD



O.P.D

Hostels

1. The section is headed by Dr. Lalit Borana, Chief Warden who is assisted by Wardens & Associate Wardens for each Hostel and a Dining Warden. Dr. Ram Sajeevan Maurya is the Dining Warden of the Institute. The Wardens and Associate Wardens are as follows:

S. No.	Name of the Hostel	Warden	Associate Warden
(a)	Devi Ahilya	Dr. Ruchi Sharma	Dr. Ananya Ghosal
(b)	APJ Abdul Kalam	Dr. Guru Prakash	Dr. Harekrishna Yadav
(c)	Vikram Sarabhai	Dr. Ashok Kumar Mocherla	Dr. Vinay Kumar Gupta
(d)	Homi Jehangir Bhabha	Dr. Abhijit Joshi	Dr. Puneet Gupta
(e)	CVRaman	Dr. Jayaprakash Murugesan	Dr. Saptarshi Ghosh

2. Hostels: The Institute has 5 hostels which provide students with a homely environment, overseen by a dedicated and professional housekeeping team. Each hostel has 98 units with capacity of accommodating total 490 students. Each unit has five bedrooms with single occupancy for each room. It also has a furnished living area, common kitchen, two toilets and two washrooms. IIT Indore ensures that students from different states, languages and different departments are allotted in a unit to promote inter-disciplinary approach in study and research and national bonding among them.



3. Facilities: The basic facilities in each unit include Refrigerator, Sofa, RO water with chiller facility along with hot water in washrooms as well as intercom telephones, discussion tables, study tables, lights, fans, an almirah, and a cot.



4. Recreational Facilities: Televisions have been installed in common areas. Sports and Gymnasium facilities are also available. A turf badminton court in the hall quadrangle has been made available for students. Further each hostel has a foosball and table-tennis tables in the common area.



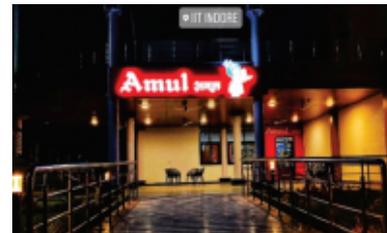
5. Dining Facility: Students are served healthy meals wherein the menu is decided by the dining committee and is updated regularly. Flexible options are available to pay as you eat i.e. Meal wise (Breakfast/



Lunch/ Hi-Tea/ Dinner), Day, Monthly and Semester. The payment is done through Smart Card Facility and is cashless only. Other than regular dining services, there are foodkiosks which serve delicacies round the clock –Taste Buds, Café Zippy, Shiru Café, Tea Post, Aladeenand Café Zoom.



6. Other Facilities: A student facilities center, La'Fresco, serves food items, vegetables, fruits and stationery and daily needs. In addition, Amul outlet is also in the campus which serves dairy products.



Student Affairs Section

- The Student Affairs Section is headed by Dr. Santosh Kumar Vishvakarma, Dean of Student Affairs assisted by Dr. Ajay Kumar Kushwaha - Associate Dean of Student Affairs, Cdr. Sunil Kumar (Retd.) - Deputy Registrar Student Affairs and Mr. Sunil Sawle- Manager Student Affairs.
- The Student Affairs Section comprises of various sub sections, namely Technical, Cultural, Sports, Placement, Counselling and Hostels. These sections conduct activities to enhance their confidence, leadership qualities, attitude, management, communication and creative skills. The period from April 2019 to March 2020 witnessed a buzz of activity across various domains. It included resumption of Students' Gymkhana, creation of Graduate Students' Forum for PG students, formulation of Constitution of Gymkhana, making of Student Affairs Section webpage.
- The Technical, Cultural and Sports section is led by Dr. Indrasen Singh, Dr. Mrigendra Dubey and Dr. Lalit Borana respectively.
- Students' Gymkhana, an elected body of the students, was formed comprising of following members:

General Secretary	- Mr. Rhythm
Technical Secretary	- Mr. Jubin Nagpal
Science & Technology Secretary	- Mr. Himanshu Mishra
Sports Secretary	- Mr. Arun Sharma
Academic Secretary	- Mr. Gaurav Khadse
Hostel Affairs Secretary	- Mr. Puneet Krishna Chitkariya
- In addition, Graduate Students' Forum was also formed to coordinate activities at the postgraduate level such as invited lectures/ seminars, sports, technical events and any other activity to enhance the participation of postgraduate students. It comprised of following members:

Secretary General	- Mr. Akshay Thakare
Secretary, Mechanical Engg.	- Mr. S. Jaya Chandran
Secretary, Electrical Engg.	- Mr. Vipin Gupta
Secretary, Computer Science & Engg.	- Mr. Akhilesh Mohan Srivastava
Secretary, Civil Engg.	- Mr. Akshay Thakare
Secretary, Metallurgy Engg. & Materials Science	- Mr. Aditya Kumar Litoria
Secretary, Biosciences & Biomedical Engg.	- Ms. Deeksha Tiwari
Secretary, Physics	- Ms. Ekta Yadav
Secretary, Chemistry	- Mr. Sambhu Nath
Secretary, Mathematics	- Mr. Bharat Richhariya
Secretary, Humanities & Social Sciences	- Mr. Salla K. Nithyanth
Secretary, Dept of Astronomy, Astrophysics & Space Engg.	- Ms. Parul Janagal's

Technical Section

During the course of events in the last couple of years several interesting findings could be identified. It has been observed that in order to perform well professionally as well as personally, students should not only be knowledgeable, but need to develop civic, social, interpersonal and workplace skills as well. In addition to reinforcing concepts from earlier and concurrent courses, the Technical Clubs conduct frequent workshops which serve as a platform for exposing students to interdisciplinary topics. Also, students mature in areas such as oral and written communication, awareness of professional ethics, and working effectively in a team-based setting. Mixing of students from different disciplines and different grades greatly enhances sense of fellow feeling and team spirit. Such workshops, being conducted by the students themselves, increases the sense of belongingness, inculcates maturity, sensibility, leadership qualities among the organizing students.

Robotics:

The Robotics Club started its electrifying year with the introduction of robotics to the beginners. This session was kept for the beginners to apprise them on the activities done by the Club, importance of robotics in the present generation, and future plans. The Robotics Club has always put more emphasis on hands-on learning and training for fellow students through various workshops and training sessions. Controlling a robot and seeing what goes wrong, students learn what robots can and can't do. They also learn the need for precise instructions. As a part of such activity, workshop session on basics of robots and robotics was conducted this year with the aim to motivate students in design, estimation, fabrication and testing their own ideas of basic controlled robots.



RF Module Workshop (August 09, 2019):

The RF module workshop aimed to explain the making of transmitters & receivers and some basic stuff of robotics. The first part of the workshop was about the components required followed by second part explaining about the circuit diagrams of transmitter and receiver. The concluding part comprised of students using the components and diagrams to wire up the circuit.



Roborace Competition (September 14, 2019):

The RF Module workshop was followed by the students designing their own robots and deploying them for competition. The competition saw a large participation amongst the students and this competition acted as a catalyst to motivate the students to pursue designing of circuits and entering into a robotic era. It helped the students to hone their skills in improving the communication between transmitter and receiver by implanting various obstacles enroute. The students could work on their own design and learn from others too.



Drone Introduction Workshop (September 16, 2019):

This being an introductory workshop, the participants were introduced to drones including their uses and physics behind drone flight dynamics. The components used in drones and their assembly was also shown followed by demonstrating a mini drone flight. The components that are common to drones and planes were also brought into their knowledge.

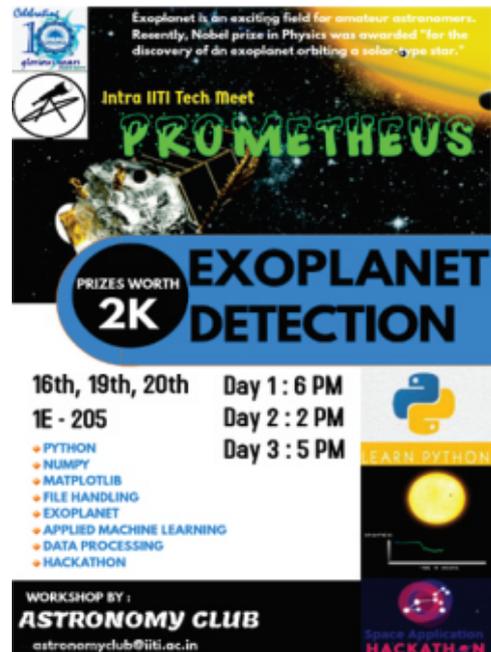


AUTOCAD Workshop (August 14, 2019):

The Concrete Club conducted an AUTOCAD workshop for the students entailing basic commands, terminology and basic use. The workshop included the use of AutoCAD in a 2D & 3D computer-aided drafting software application used in architecture, construction, and manufacturing arenas assisting in the preparation of blueprints and other engineering plans. It also included description of zero screen features including templates and other tools, settingscale and drawing basic shapes like circles, lines, rectangles, polylines, arcs, polar arcs, etc. by command keywords as well as panel shortcuts. Handy and smart use of commands emphasizing on time saving were also covered.

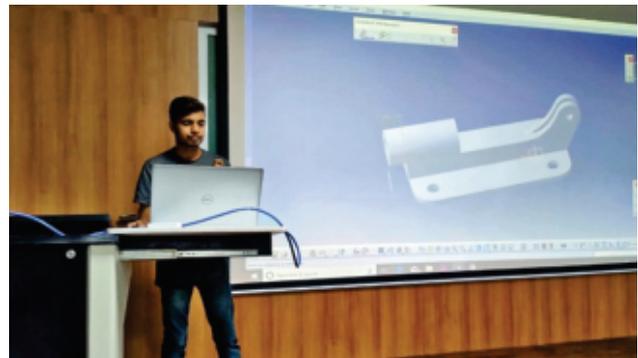
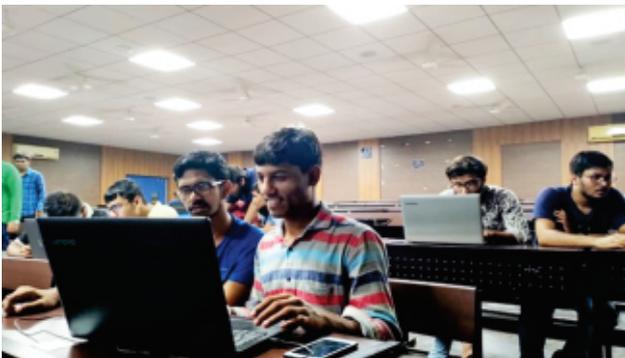
Exoplanet Detection (October 16, 19 & 20, 2019):

The Astronomy Club conducted a 03-day workshop to motivate the students on studying celestial bodies and detecting exoplanets, planets like ours in other solar systems. The first day focused on those who were new to python, from identifiers to functions followed by visual representation in form of different graphs using matplotlib and various array operations in Numpy. The second day provided an insight on what can be done with computers using simple algorithms. From basics to an introduction to neural networks, students learnt the application of ML and how to apply various libraries. The theory of working of Transit Method and its use to find various properties of an exoplanet was also presented. The workshop ended with some insights of the implementation of Exoplanet. The last day saw students using their skills to find the properties of exoplanet right way.



Workshop on Designing with CATIA V5 (October 9 & 10, 2019):

The CAE club conducted two-day CATIA V5 workshop entailing basic commands, terminology and basic use. The first day comprised of a brief introduction of 'Part Design' workbench that assists in designing and developing a 3D model using CATIA. Designing of different components of a 'Toggle Clamp Mechanism' such as cap, connecting rod etc. were also covered. The second day comprised of a brief introduction on 'Assembly Design' workbench that assists in assembling different components and developing feasible mechanism using CATIA. Solidworks, a 2D & 3D computer-aided designing software application used in architecture, construction, and manufacturing was also covered. These workshops acted as a preparatory course to motivate the students to participate in the Intra-IIT event named 'CADathon'.



Model United Nations (October 12 & 13, 2019):

The third edition of Model United Nations aimed to make MUN IITI bigger and better and for the first time ever, five committees, namely UNGA, UNCSW, UNEP, ICJ and AIPPM, were formed as part of the two-day conference. Debates were contested in all the committees in order to resolve the pressing agendas and reach a consensus. The agendas were vexing issues pertaining to the field of expertise of the particular committee. The most representative of India's diversity was the Indian committee AIPPM, which represented politicians from across the country, who spoke their own mother tongues and the delegates celebrated this freedom by showing up in attires which were characteristic to their state. The lively nature of the debates that followed only goes on to show that the multi-lingual and multi-cultural nature of India.



Cultural Section

The Cultural Clubs welcomed the students with a melodious night on July 29, 2019. Various clubs under the cultural club were introduced.



Dandiya and Garbha (October 7, 2019):

The delightful sight of energetic light-footed young boys and girls swirling in graceful rhythmic traditional Garba music and enthusiastically playing Dandiya on Dandiya numbers along with some peppy Bollywood songs, kept everyone glued to the dance floor all throughout till the very end of the event.



Ganesh Chaturthi, Lohri & Saraswati Puja Celebration:

All festivals were celebrated by the students with great fervour and enthusiasm.





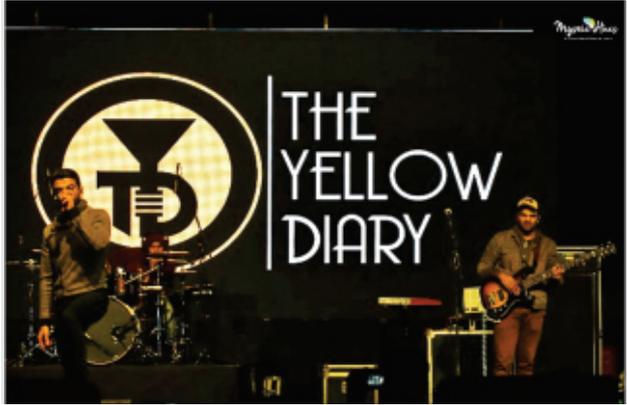
Other Celebrations and Activities:

The Student Gymkhana also celebrated Diwali, Friendship Day and New Year Eve. On the occasion of Mental Health Awareness Day, Nukkad Natak was held. Activities included a poster making competition, street act by Dramatics Club and a short movie made by the Cinephiles. Swachhta Pakhwada was also observed which included an essay writing competition, group discussion and a competition regarding cleanest hostel rooms. Various cultural clubs held several other individual competitions and workshops. The Literary Club organized Ransense (a writing competition), a story writing competition, Cache of Lexis and Model United Nations. The Quiz Club organized several quizzes ranging from the Newbie Quiz to Obscura (puzzles), Sports quiz and a Game of Thrones quiz. The Dramatics Club performed a stage play for a residential community of Indore as a part of Navratri celebrations.

Fluxus2020 (February 6-9, 2020):

The annual Techno- Cultural festival Fluxus'20 commenced with the performances of SPIC MACAY and Kavyanjali on February 6th. Fluxus organized 15+ Technical Competitions, 30+ Cultural Competitions, Technical Exhibitions, Conclave, CSR Activities, etc. With shows from renowned artists like Zakir Khan, DJ Shaan, and Salim-Sulaiman to up-and-coming performers like The Yellow Diary, Fluxus 2020 witnessed exhilarating performances from both Indian and international artists alike and had the largest footfall till date. Entrepreneurs and leaders such as Dr. Aryama Sanyal, Indore Airport Director, Mr. Farrhad Acidwalla addressed the students and visitors at Fluxus. Fluxus naturally features the most interesting and gripping technical events, from aeromodelling competitions to hackathons to quizzes, exhibitions and our flagship event- the Robo wars. Engineers and technology enthusiasts from all across the region come together to make the technical a huge success of the fest.





Sports Section

1. The Sports Sections is headed by Dr. Lalit Borana, Sports Convener and is assisted by Mr. Renchu, Sports Officer. Lot of sports and fitness activities are conducted round the year to ensure physical and mental fitness of the students and community. The students showed great potential in various games held throughout the year like Intra IIT, Inter Hostel and matches with other Institutes. Some of the games which witness lot of participation are Athletics, Badminton Basketball, Football, Chess, Kho Kho, Lawn Tennis, Table Tennis and Volleyball.

2. Inter IIT Student's Sports Meet: The Institute took part in 54th Inter IIT Sports Meet 2019 held at IIT Kharagpur and showed remarkable performance. A total of 35 students participated in Athletics, Basketball, Chess, and Football as part of this event with Mr. Dheerendra Singh winning Silver Medal in Javelin throw.



3. Inter IIT Staff Sports Meet: The Institute took part in 26th Inter IIT Staff Sports Meet 2019 held at IIT Kharagpur and showed remarkable performance. One of the staff member, Mr. Rameshwar Dohare, won a gold medal in Javelin throw and a Silver Medal in Discus throw. A total of 15 staff participated in this event. They took part in games like Athletics, Badminton, and Lawn Tennis.



4. Yoga: International Yoga Day was celebrated at IIT Indore on June 21, 2020 through live online streaming. The session was conducted by Dr. Omananda Gurujii from Padmananda Institute of Yoga Science and Research. The students attended the event from their respective houses. Live streaming was available, and the event saw large participation of students.





एक भारत श्रेष्ठ भारत



India is a unique nation, whose fabric has been woven by diverse linguistic, cultural and religious threads, held together into a composite national identity by a rich history of cultural evolution.

EK Bharat Shreshtha Bharat has been initiated at IIT Indore in order to diversity along with cooperative federalism to encourage unity throughout the country. The main Objectives of the program are **to celebrate** Unity in Diversity of our Nation and to maintain and strengthen the fabric of traditionally existing emotional bonds between the people of our country; **to promote** the spirit of national integration through a deep and structured engagement between all Indian States and Union Territories through a year-long planned engagement between states; **to showcase** the rich heritage and culture, customs and traditions of either state for enabling people to understand and appreciate the diversity that is India, thus fostering a sense of common identity; **to establish** long term engagements; and **to create** an environment which promotes learning between states by sharing best practices and experiences.

According to this scheme, the paired IIT of the country will be connected to another state IIT annually and both of them will be able to share the rich heritage of each other state by organizing various programs like: concerts, food festivals, literary events, book festivals, tours and travel etc. IIT Indore is paired with IIT Patna under EBSB Programme.



Convener

Dr. Niraj Kumar Shukla
ebsb@iiti.ac.in

Various Abhiyan at IIT Indore
under EBSB

<http://ebsb.iiti.ac.in>

RashtriyaAvishkar Abhiyan

<http://ebsb.iiti.ac.in/rashtriya-avishkar-abhiyan/>

Unnat Bharat Abhiyaa

<http://ebsb.iiti.ac.in/Unnat-Bharat-Abhiyan/>

RuTAG

<http://ebsb.iiti.ac.in/RuTAG/>

Swachh Bharat Abhiyan

<http://ebsb.iiti.ac.in/Swachh-Bharat-Abhiyan/>

IIT Indore organised many events under EBSB Programme to make the meaning full and achieve the objective of EBSB.

1. October 01, 2020-Slogan Writing Competition-On the occasion of "Gandhi Jayanti" IIT Indore organised an event which includes Slogan writing competition on "How to promote Cleanliness" in all Regional languages excluding English.
2. During lock down (March-August, 2020)-Students are actively involved for preparing various posters for the awareness of COVID 19. Some of posters are published in the FREE PRESS News Papers.
3. February 17, 2020 - Essay Writing Competition amongst Indore School from class V to XII on the occasion of 10th Anniversary of IIT Indore.
4. February 16, 2020-Food cooking and various competitions on the occasion of "MATRIBHASHA DIWAS" (Mother Language Day)
5. February 07, 2020, January 03, 2020, October 17, 2019, August 27, 2019, April 26, 2019, etc.- More than 2400 students accompanied with 100 Teachers from Indore Region School visit @ IIT Indore to experience the life outside the school and making learning joyful and use of technology.

Student Statistics

Indian Institute of Technology Indore

List of graduating BTech students at the end of 2020-Spring Semester

S. N.	Roll No.	Student's Name	Discipline
1	160004003	ADITYA SINGH	Civil Engineering
2	160004004	AMAN PATEL	Civil Engineering
3	160004005	ANKIT DABGAR	Civil Engineering
4	160004006	ANSHUL SRIVASTAVA	Civil Engineering
5	160004007	ASHOK KUMAR YADAV	Civil Engineering
6	160004008	AYUSH KESARWANI	Civil Engineering
7	160004009	BHASKAR DATTA	Civil Engineering
8	160004010	DAANISH MAHAJAN	Civil Engineering
9	160004011	DEVASHISH SHUKLA	Civil Engineering
10	160004012	DHEERENDRA SINGH	Civil Engineering
11	160004014	DIVYA SHARMA	Civil Engineering
12	160004015	FATHIMA SUHARA. M	Civil Engineering
13	160004016	GANDHI SUYASH SUDHIR	Civil Engineering
14	160004018	HARSHIT MATHUR	Civil Engineering
15	160004019	LOKESH MEENA	Civil Engineering
16	160004020	MAHESHWARI RAHUL	Civil Engineering
17	160004023	PSAI KUSHAL	Civil Engineering
18	160004024	PIYUSH SINGH	Civil Engineering
19	160004025	RAJAT BHATI	Civil Engineering
20	160004026	RAVI JANGID	Civil Engineering
21	160004027	RAVISHARMA	Civil Engineering
22	160004028	ROHAN AGARWAL	Civil Engineering
23	160004029	SAGAR GOME	Civil Engineering
24	160004030	SATYAJEET MEENA	Civil Engineering
25	160004031	SAURABH JAISWAL	Civil Engineering
26	160004033	SHALAY GUPTA	Civil Engineering
27	160004034	SHASHANK BHARGAVA	Civil Engineering
28	160004035	SHUBHAM KUMAR CHAYLA	Civil Engineering
29	160004036	SHUBHAM SAHU	Civil Engineering
30	160004037	STUTI DUBEY	Civil Engineering
31	160004038	SUDHISH KUMAR MISHRA	Civil Engineering

S. N.	Roll No.	Student's Name	Discipline
32	160004039	SUMIT MEENA	Civil Engineering
33	160005021	PARTH PANDEY	Civil Engineering
34	160005024	POTHURAJU DEEKSHITH	Civil Engineering
35	130001002	ABHINAV HARDIA	Computer Science and Engineering
36	140001023	RAHUL KUMAR KESHRI	Computer Science and Engineering
37	150001039	YASH KRISHAN VERMA	Computer Science and Engineering
38	160001001	ABHISHEK MISHRA	Computer Science and Engineering
39	160001003	AMEY KIRAN PATEL	Computer Science and Engineering
40	160001004	AMIT KUMAR MEENA	Computer Science and Engineering
41	160001005	ANURAG VERMA	Computer Science and Engineering
42	160001006	ARAVINDRAVIKUMAR	Computer Science and Engineering
43	160001007	ARJUN SRIVASTAVA	Computer Science and Engineering
44	160001008	ARUSHI JAIN	Computer Science and Engineering
45	160001009	ASHISH ARUN GAWAI	Computer Science and Engineering
46	160001010	ASHISH MANDAL	Computer Science and Engineering
47	160001011	ASHUTOSH BANG	Computer Science and Engineering
48	160001012	AYUSH MANTRI	Computer Science and Engineering
49	160001013	AYUSH PRASAD	Computer Science and Engineering
50	160001014	BANALA ASHISH	Computer Science and Engineering
51	160001016	BITAN PAUL	Computer Science and Engineering
52	160001017	CHAKUNTA VIJAY RISHEEL	Computer Science and Engineering
53	160001018	CHINMAY ANAND	Computer Science and Engineering
54	160001019	DANDE PRAVEEN KUMAR	Computer Science and Engineering
55	160001020	DHAARNA MAHESHWARI	Computer Science and Engineering
56	160001021	G VENKATA SAI AKHIL	Computer Science and Engineering
57	160001022	GHANSHYAM BAIRWA	Computer Science and Engineering
58	160001023	GOEL ISHAN MOHIT	Computer Science and Engineering
59	160001025	HARSH VARDHAN	Computer Science and Engineering
60	160001026	JOSHI NIRANJAN SUHAS	Computer Science and Engineering
61	160001027	KNITHIN KUMAR	Computer Science and Engineering
62	160001028	KANISHKAR J	Computer Science and Engineering
63	160001030	KOVIDH VENGALA	Computer Science and Engineering
64	160001031	KRITIK SHARMA	Computer Science and Engineering
65	160001032	KUMAR ABHINAV	Computer Science and Engineering
66	160001033	MAHESH KUMAR	Computer Science and Engineering

S. N.	Roll No.	Student's Name	Discipline
67	160001034	MANDALIKA ANISH SRI CHANDRA	Computer Science and Engineering
68	160001035	MOHIT MALVIYA	Computer Science and Engineering
69	160001036	MUKKAMALLA MOUNIKA	Computer Science and Engineering
70	160001037	NAIK PRATHAMESH UMESH	Computer Science and Engineering
71	160001038	NAMAN SINGHAL	Computer Science and Engineering
72	160001040	NAUKUDKAR GAURAV HARISHCHANDRA	Computer Science and Engineering
73	160001042	NEHA NAGENDRA	Computer Science and Engineering
74	160001043	PEDDHOLLA SAIKUMAR REDDY	Computer Science and Engineering
75	160001045	PRANAY MUNDA	Computer Science and Engineering
76	160001046	PUSHPENDRA KUMAR	Computer Science and Engineering
77	160001047	RAHUL KUMAR	Computer Science and Engineering
78	160001048	RISHABH KUMAR VERMA	Computer Science and Engineering
79	160001049	RISHABH VERMA	Computer Science and Engineering
80	160001051	ROTTE PRIYANKA AJAY	Computer Science and Engineering
81	160001052	SAHAJ KHANDELWAL	Computer Science and Engineering
82	160001053	SANDARBH SAHU	Computer Science and Engineering
83	160001054	SHASHANK GIRI	Computer Science and Engineering
84	160001056	SOMESH PATIL	Computer Science and Engineering
85	160001057	SUNAND AGARWAL	Computer Science and Engineering
86	160001058	TATAVARTHY VENKAT NIKHIL	Computer Science and Engineering
87	160001059	TOGARU SURYA TEJA	Computer Science and Engineering
88	160001060	VARAKANTHAM VANDANA	Computer Science and Engineering
89	160001061	VISHAL MAURYA	Computer Science and Engineering
90	160002052	SAPTARSHI GHOSH	Computer Science and Engineering
91	160002056	SOUVIK MANDAL	Computer Science and Engineering
92	140002026	RISHIKESH MEENA	Electrical Engineering
93	150002004	AMPATI RAJA VISHWANATH	Electrical Engineering
94	160002001	ADITYA LAMBA	Electrical Engineering
95	160002002	ADITYA SANGANERIA	Electrical Engineering
96	160002003	AMAN ATTRISH	Electrical Engineering
97	160002004	AMAN VERMA	Electrical Engineering
98	160002006	ANKIT KUMAR GAJBHIYE	Electrical Engineering

S. N.	Roll No.	Student's Name	Discipline
99	160002007	ANMAY KUMAR	Electrical Engineering
100	160002008	ASHISH KUMAR GOUR	Electrical Engineering
101	160002009	AVINASH KUMAR	Electrical Engineering
102	160002010	BHAVIN KUMAR VIRSINH RATHAVA	Electrical Engineering
103	160002011	BHUTARA SUYASH MAHESH	Electrical Engineering
104	160002013	DEEPAK KUMAR	Electrical Engineering
105	160002014	DILIP KUMAR MEENA	Electrical Engineering
106	160002015	DIVYANSHU ARYA	Electrical Engineering
107	160002016	GATKESHWAR SAINOJI NAGA SAI BHARAT	Electrical Engineering
108	160002018	ITY AGRAWAL	Electrical Engineering
109	160002019	K SREEJITH	Electrical Engineering
110	160002020	K SREEVATSANK	Electrical Engineering
111	160002021	KAILASH LIMBA	Electrical Engineering
112	160002022	KANISHKA SHARMA	Electrical Engineering
113	160002023	KHANNA PRANAV PANKAJ	Electrical Engineering
114	160002024	KHUSHBOO AHUJA	Electrical Engineering
115	160002025	KORWATE SHRAYANTI BHARAT	Electrical Engineering
116	160002026	KUNAL YADAV	Electrical Engineering
117	160002027	L SUDHARANI	Electrical Engineering
118	160002029	MANISANKAR BISWAS	Electrical Engineering
119	160002030	MOHIT NATHRANI	Electrical Engineering
120	160002031	MOHIT YADAV	Electrical Engineering
121	160002032	MOKKAPATI SIDDHARTH	Electrical Engineering
122	160002033	NITYASH AGRAWAL	Electrical Engineering
123	160002034	PANCHAL KEYUR PRAHLAD	Electrical Engineering
124	160002035	PANKAJ VERMA	Electrical Engineering
125	160002036	PARIMI VIVEK MURALIKRISHNA	Electrical Engineering
126	160002037	PATEL PREYAA	Electrical Engineering
127	160002039	PITCHIKA DINESH	Electrical Engineering
128	160002041	PRATIK AHUJA	Electrical Engineering
129	160002042	PREM KUMAR SEETHANABOYINA	Electrical Engineering

S. N.	Roll No.	Student's Name	Discipline
130	160002043	PRIYANSHU VARSHNEY	Electrical Engineering
131	160002044	RAGHAV MAHAJAN	Electrical Engineering
132	160002046	RAJAN AGRAWAL	Electrical Engineering
133	160002049	RAVISHANKAR C	Electrical Engineering
134	160002050	SAFAL BAHARE	Electrical Engineering
135	160002051	SAHIL	Electrical Engineering
136	160002053	SAURABH SHARMA	Electrical Engineering
137	160002054	SHETTY MANISH SHRIDHAR	Electrical Engineering
138	160002055	SHIVANSH DWIVEDI	Electrical Engineering
139	160002057	SUYASH SHAH	Electrical Engineering
140	160002058	VAIBHAV KUMAR	Electrical Engineering
141	160002059	VAMSI BULUSU	Electrical Engineering
142	160002060	VELDANDA PRANAY REDDY	Electrical Engineering
143	160003020	HIMALI SINGH	Electrical Engineering
144	160003051	SINGH GAURAV SUBASHCHAND	Electrical Engineering
145	160003060	VISHAL KUMAR RATHORE	Electrical Engineering
146	160004002	AAKASH YADAV	Electrical Engineering
147	160004013	DIPANKAR S SHRIVASTAVA	Electrical Engineering
148	150003006	BHABEN	Mechanical Engineering
149	150003028	RAHIL	Mechanical Engineering
150	160003001	AASHISH SHARMA	Mechanical Engineering
151	160003002	ABHISHEK KUMAR	Mechanical Engineering
152	160003003	ADARSH DEEP	Mechanical Engineering
153	160003004	ADITYA PANDEY	Mechanical Engineering
154	160003005	AGAM GUPTA	Mechanical Engineering
155	160003006	AKHILESH KUMAR MEENA	Mechanical Engineering
156	160003007	ANMOL KASERA	Mechanical Engineering
157	160003008	ANURAG SHARMA	Mechanical Engineering
158	160003009	APOORV AGRAWAL	Mechanical Engineering
159	160003010	ASHISH MEENA	Mechanical Engineering
160	160003012	BANTE ANIRUDDHA KESHAO	Mechanical Engineering
161	160003013	BOMMINAYUNI MANOJ	Mechanical Engineering
162	160003014	CHETAN SHARMA	Mechanical Engineering
163	160003015	DHOTESAMIKSHA UMAKANT	Mechanical Engineering
164	160003017	DUBAKULA YESHWANTH	Mechanical Engineering

S. N.	Roll No.	Student's Name	Discipline
165	160003018	GAURAV SHUKLA	Mechanical Engineering
166	160003023	KADAM TUSHAR VILAS	Mechanical Engineering
167	160003024	KUSHAGRA SHARMA	Mechanical Engineering
168	160003025	MANDIVARAPU THIKSHAN MADHAV	Mechanical Engineering
169	160003026	MANISH SINGH RATHORE	Mechanical Engineering
170	160003027	MAYANK GUPTA	Mechanical Engineering
171	160003028	MEHTA CHAITANYA MUKESHKUMAR	Mechanical Engineering
172	160003029	MEHTA GAURAV KEWALRAI	Mechanical Engineering
173	160003031	NAIK CHINMAY SANDEEP	Mechanical Engineering
174	160003032	NANDA KRISHNA SINDAM	Mechanical Engineering
175	160003033	NARNE VAMSI	Mechanical Engineering
176	160003034	NATH SHUBHANKAR KISHOR	Mechanical Engineering
177	160003035	NUKUL GOYAL	Mechanical Engineering
178	160003036	OCHIRAMANI YASH RAJESHKUMAR	Mechanical Engineering
179	160003038	PATIL AMOD MOHANRAO	Mechanical Engineering
180	160003040	POTALA JAIDEEP	Mechanical Engineering
181	160003041	RADE SAURABH JAIDEEP	Mechanical Engineering
182	160003042	RAJA SHREE PRABHU A	Mechanical Engineering
183	160003043	RAPAKA VINAY KUMAR	Mechanical Engineering
184	160003044	SAURABH KUMAR	Mechanical Engineering
185	160003045	SAURAV KUMAR	Mechanical Engineering
186	160003046	SHAH AAGAM	Mechanical Engineering
187	160003047	SHAILESH KUMAR MEENA	Mechanical Engineering
188	160003048	SHANTANU GUPTA	Mechanical Engineering
189	160003049	SHREYASH SINGH	Mechanical Engineering
190	160003050	SIDDHARTH JAIN	Mechanical Engineering
191	160003052	SINGH PAWANKUMAR VINODKUMAR	Mechanical Engineering
192	160003053	SINKAR AVADHOOT PRASHANT	Mechanical Engineering
193	160003054	SOORYA PRATAP	Mechanical Engineering
194	160003055	UMESH KUMAR LODHI	Mechanical Engineering
195	160003056	VAIDYA RUSHIKESH NAGORAO	Mechanical Engineering

S. N.	Roll No.	Student's Name	Discipline
196	160003057	VIJAY SINGH MEENA	Mechanical Engineering
197	160003058	VIKASH KUMAR	Mechanical Engineering
198	160003061	ZANKE SWAROOP DILIP	Mechanical Engineering
199	160004001	A. HARSHITA	Mechanical Engineering
200	160004017	GAUTAM KUMAR	Mechanical Engineering
201	160005006	ANJALI PARASHAR	Mechanical Engineering
202	160005020	NILAY UPADHYAY	Mechanical Engineering
203	160005001	ABDUL WASIM KHAN	Metallurgy Engineering and Materials Science
204	160005002	ABHIJEET SINGH TOMAR	Metallurgy Engineering and Materials Science
205	160005003	ABHISHEK KAMAT	Metallurgy Engineering and Materials Science
206	160005004	AGRAWAL ADITI AMITESH	Metallurgy Engineering and Materials Science
207	160005007	ASHISH SINGHAL	Metallurgy Engineering and Materials Science
208	160005008	ASHUTOSH GUPTA	Metallurgy Engineering and Materials Science
209	160005009	AVIJIT PANDEY	Metallurgy Engineering and Materials Science
210	160005010	DESHPANDE INDRANEEL SUNDEEP	Metallurgy Engineering and Materials Science
211	160005012	EMIN VARGHESE	Metallurgy Engineering and Materials Science
212	160005013	GARVIT SHARMA	Metallurgy Engineering and Materials Science
213	160005014	HARSH LONARE	Metallurgy Engineering and Materials Science
214	160005015	HARSH RANJAN	Metallurgy Engineering and Materials Science
215	160005016	INGALE TIRTHESH RAVINDRA	Metallurgy Engineering and Materials Science
216	160005017	JAY SHUKLA	Metallurgy Engineering and Materials Science
217	160005018	MANISH KUMAR NIRAJ KUMAR	Metallurgy Engineering and Materials Science
218	160005019	MOHAMMED HADHI P P	Metallurgy Engineering and Materials Science

S. N.	Roll No.	Student's Name	Discipline
219	160005022	PASWAN SHITAL RAJAN	Metallurgy Engineering and Materials Science
220	160005023	PATIL CHETAN EKNATH	Metallurgy Engineering and Materials Science
221	160005025	RAHUL BHAKRANI	Metallurgy Engineering and Materials Science
222	160005026	RAHUL PC	Metallurgy Engineering and Materials Science
223	160005027	RAJAT AGRAWAL	Metallurgy Engineering and Materials Science
224	160005028	RAJAT UPADHYAY	Metallurgy Engineering and Materials Science
225	160005029	RAMTEKE MRUNMAY SUNIL	Metallurgy Engineering and Materials Science
226	160005030	RAVIMEENA	Metallurgy Engineering and Materials Science
227	160005031	RIJUL BHARAT SAGAR	Metallurgy Engineering and Materials Science
228	160005033	SAGAR GOSWAMI	Metallurgy Engineering and Materials Science
229	160005034	SATYAM KUMAR	Metallurgy Engineering and Materials Science
230	160005035	SHREYASSS	Metallurgy Engineering and Materials Science
231	160005036	SONAGARA HARSHAL	Metallurgy Engineering and Materials Science
232	160005039	VULLENGALA MANISH CHANDRA	Metallurgy Engineering and Materials Science
233	160005040	YASH RAJESH SHINDE	Metallurgy Engineering and Materials Science

Student Statistics

Indian Institute of Technology Indore

List of MTech (2018-Batch and 2017-Batch) students who likely to be graduated

S. N.	Roll No.	Name	Program	Discipline	Specialization
1	1802102001	Gayatri Vijayakumar	M.Tech.	Electrical Engineering	Communication and Signal Processing
2	1802102002	Jagdale Mohit Chandrakant	M.Tech.	Electrical Engineering	Communication and Signal Processing
3	1802102004	Manoj Tripathi	M.Tech.	Electrical Engineering	Communication and Signal Processing
4	1802102005	Rishita Sharma	M.Tech.	Electrical Engineering	Communication and Signal Processing
5	1802102007	Somkuwar Palash Bhimrao	M.Tech.	Electrical Engineering	Communication and Signal Processing
6	1802102008	Vijay Nagar	M.Tech.	Electrical Engineering	Communication and Signal Processing
7	1802102013	Borra Jeevan Teja	M.Tech.	Electrical Engineering	VLSI Design and Nanoelectronics
8	1802102014	Jitesh Prasad	M.Tech.	Electrical Engineering	VLSI Design and Nanoelectronics
9	1802102015	Jyoti Bhatia	M.Tech.	Electrical Engineering	VLSI Design and Nanoelectronics
10	1802102016	K Sai Kiran	M.Tech.	Electrical Engineering	VLSI Design and Nanoelectronics
11	1802102017	Muktagucha Naga Viswanath	M.Tech.	Electrical Engineering	VLSI Design and Nanoelectronics
12	1802102018	Prashant Puri	M.Tech.	Electrical Engineering	VLSI Design and Nanoelectronics
13	1802102019	Rana Sagar Kumar	M.Tech.	Electrical Engineering	VLSI Design and Nanoelectronics
14	1802102020	Ruchika Gautam	M.Tech.	Electrical Engineering	VLSI Design and Nanoelectronics
15	1802102021	Utkarsh Sharma	M.Tech.	Electrical Engineering	VLSI Design and Nanoelectronics
16	1802102023	Pratyush Mishra	M.Tech.	Electrical Engineering	VLSI Design and Nanoelectronics
17	1802102024	Sudipta Das	M.Tech.	Electrical Engineering	VLSI Design and Nanoelectronics
18	1802105001	Ankit Solanki	M.Tech.	Metallurgy Engineering and Materials Science	Material Science and Engineering
19	1802105002	Shadab Ali Ahmed	M.Tech.	Metallurgy Engineering and Materials Science	Materials Science Engineering

S. N.	Roll No.	Name	Program	Discipline	Specialization
20	1802105003	Farhan Ali Ahmad	M.Tech.	Metallurgy Engineering and Material Science	Materials Science Engineering
21	1802105005	Rhishikesh Darshan	M.Tech.	Metallurgy Engineering and Materials Science	Material Science and Engineering
22	1802105006	Shubham Vasant Gaidhani	M.Tech.	Metallurgy Engineering and Materials Science	Material Science and Engineering
23	1802105008	Ekta Majhi	M.Tech.	Metallurgy Engineering and Materials Science	Material Science and Engineering
24	1802105009	Sharik Akhtar	M.Tech.	Metallurgy Engineering and Materials Science	Material Science and Engineering
25	1802105010	Manish Kumar Tiwari	M.Tech.	Metallurgy Engineering and Materials Science	Material Science and Engineering
26	1802105012	Manish Badole	M.Tech.	Metallurgy Engineering and Materials Science	Material Science and Engineering
27	1802105007	Shardeshu Pandey	M.Tech.	Metallurgy Engineering and Materials Science	Material Science and Engineering
28	1802105013	Akshaya Kumar Jain	M.Tech.	Metallurgy Engineering and Materials Science	Metallurgy Engineering
29	1802105014	Ankit Kumar Singh	M.Tech.	Metallurgy Engineering and Materials Science	Metallurgy Engineering
30	1802105015	Ashok Kumar	M.Tech.	Metallurgy Engineering and Materials Science	Metallurgy Engineering
31	1802105016	Chaitanya Vishwakarma	M.Tech.	Metallurgy Engineering and Materials Science	Metallurgy Engineering
32	1802105017	Darshan Dange	M.Tech.	Metallurgy Engineering and Materials Science	Metallurgy Engineering
33	1802105018	Dheeraj Kumar	M.Tech.	Metallurgy Engineering and Materials Science	Metallurgy Engineering
34	1802105019	Ghadse Pratik Parag	M.Tech.	Metallurgy Engineering and Materials Science	Metallurgy Engineering

S. N.	Roll No.	Name	Program	Discipline	Specialization
35	1802105020	Janmejai Sharma	M.Tech.	Metallurgy Engineering and Materials Science	Metallurgy Engineering
36	1802105022	Mohammed Mubarak Kottadan	M.Tech.	Metallurgy Engineering and Materials Science	Metallurgy Engineering
37	1802105023	Reeturaj Tamuly	M.Tech.	Metallurgy Engineering and Materials Science	Metallurgy Engineering
38	1802103001	Balaji Nanda K	M.Tech.	Mechanical Engineering	Production and Industrial Engineering
39	1802103002	Pradyumn Kumar Arya	M.Tech.	Mechanical Engineering	Production and Industrial Engineering
40	1802103003	Manish Patidar	M.Tech.	Mechanical Engineering	Production and Industrial Engineering
41	1802103004	Jaideep Singh	M.Tech.	Mechanical Engineering	Production and Industrial Engineering
42	1802103006	Abhay Tiwari	M.Tech.	Mechanical Engineering	Production and Industrial Engineering
43	1802103007	Shivam Gupta	M.Tech.	Mechanical Engineering	Production and Industrial Engineering
44	1802103008	Menkar Shubham Balmukund	M.Tech.	Mechanical Engineering	Production and Industrial Engineering
45	1802103009	Mate Akshay Dnyaneshwar	M.Tech.	Mechanical Engineering	Production and Industrial Engineering
46	1802103010	Jitendra Singh Queraly	M.Tech.	Mechanical Engineering	Production and Industrial Engineering
47	1702103013	Sandeep Gour	M.Tech.	Mechanical Engineering	Production and Industrial Engineering
48	1802103013	Akanksha Chaudhari	M.Tech.	Mechanical Engineering	Mechanical Systems Design
49	1802103014	Eklavya Tripathi	M.Tech.	Mechanical Engineering	Mechanical Systems Design
50	1802103015	Harshdeep Sharma	M.Tech.	Mechanical Engineering	Mechanical Systems Design
51	1802103016	Kushagra Kastwar	M.Tech.	Mechanical Engineering	Mechanical Systems Design
52	1802103017	Pavan H Shahapurkar	M.Tech.	Mechanical Engineering	Mechanical Systems Design
53	1802103018	Prakash Khatri	M.Tech.	Mechanical Engineering	Mechanical Systems Design
54	1802103020	Shahrukh Khan	M.Tech.	Mechanical Engineering	Mechanical Systems Design
55	1802103021	Shashank Choudhary	M.Tech.	Mechanical Engineering	Mechanical Systems Design
56	1802103022	Shivam Kumar	M.Tech.	Mechanical Engineering	Mechanical Systems Design
57	1802103024	Sumit Kumar Gupta	M.Tech.	Mechanical Engineering	Mechanical Systems Design

Indian Institute of Technology Indore

List of graduating PhD students at the end of 2020-Spring Semester

Sl.	Roll No.	Discipline	Name	Date of PhD Viva	PhD Thesis Title [Thesis supervisor(s)]
1	1401251001	Physics	Alok Yadav	20 Nov 19	Network as (0,1)-embedded systemaka unweighted adjacency matrix (Prof. Sarika Jalan)
2	1401161002	HSS	Madan Dhanora	26 Nov 19	Innovation and market structure: Exploring the feedback effect, the role of policy regime and types of innovation (Dr. Ruchi Sharma)
3	1401161001	HSS	Jasmine Fernandez	2 Dec 19	Organ Heist Medical Thrillers: A Grotesque Perspective (Dr. C. Upendra and Dr. Amarjeet Nayak)
4	1501181007	MEMS	Mani Prabhu S.S.	3 Dec 19	Experimental Investigations on Mechanical Properties, Smart Functional Capabilities and Corrosion Behavior of Friction Stir Welded Nitinol Shape Memory Alloys (Dr. I.A. Palani)
5	1401102006	EE	Joice G. Philip	16 Dec 19	Identification of Optimal PMU Locations and Synchrophasor Measurements Based Estimation of Electromechanical Modes in Power System (Dr. Trapti Jain)
6	1401251008	Physics	Saptarshi Ghosh	8 Jan 20	Chimera State in Multiplex Networks (Prof. Sarika Jalan)
7	1501201003	CSE	Ram Prakash Sharma	14 Jan 20	Assessment of Fingerprint Quality with Application in Enhancement and Liveness Detection (Dr. Somnath Dey)
8	1301202011	EE	Sidharth Shukla	14 Jan 20	Traffic Scheduling and Grooming of Optical and Wireless Networks (Prof. Vimal Bhatia)
9	1401181001	MEMS	Aakash Mathur	15 Jan 20	Interface Effect in Confined Semiconductors: Tunable Optical Properties (Dr. Sudeshna Chattopadhyay and Dr. Chelvam Venkatesh)
10	12110101	CSE	Rohit Verma	20 Jan 20	Service Oriented Architecture for Constrained Environments (Dr. Abhishek Srivastava)

Sl.	Roll No.	Discipline	Name	Date of PhD Viva	PhD Thesis Title [Thesis supervisor(s)]
11	1401203002	ME	Avadhesh Kumar Sharma	21 Jan 20	Thermal and Rewetting Behavior of Hot Stationary and Moving Surfaces (Dr. Santosh Kumar Sahu)
12	1401102002	EE	Abhijeet Gorey	31 Jan 20	Development of intensity-modulated continuous wave laser diode based photoacoustic spectral response technique for biomedical applications (Dr. S. Vasudevan)
13	1401271003	BSBE	Pratibha Kumari	11 Feb 20	Design and Construction of Fluorescent Bioactive Probes for Bioimaging of Targeted Cellular Organelles (Dr. Shaikh M Mobin)
14	1401181002	MEMS	Ajaib Singh	4 Mar 20	Zinc Oxide-Polymer Nanocomposites: Confinement Induced Variation in Structure, Morphology and Optical Properties (Dr. Sudeshna Chattopadhyay and Dr. Chelvam Venkatesh)
15	1501102008	EE	Mangal Das	16 Mar 20	Yttria based Memristive System for Neuromorphic Applications (Dr. Shaibal Mukherjee)
16	1501181004	MEMS	Swati Mishra	15 May 20	Investigations on Robust Motion Control Designs for Mobile Manipulators (Dr. S.K. Vishvakarma and Dr. M. Santhakumar (IIT Pallakad))
17	1301171001	BSBE	Amit Kumar Singh	15 May 20	Role of splicing regulator SRSF1-3 and nucleosome positioning linked with AID mediated somatic hypermutation of Ig genes (Dr. Prashant Kodgire)
18	1401102009	EE	Nishant Saxena	18 May 20	Exploring The Ultimate Speed Of Threshold Switching In Phase Change Memory Devices (Dr. Amod C. Umarikar and Dr. M. Anbarasu [IIT Madras])
19	1401102007	EE	Mahesh Kumawat	18 May 20	On-Chip Circuit Design Techniques for High-Speed Serial Links (Dr. Santosh K. Vishvakarma)

Sl.	Roll No.	Discipline	Name	Date of PhD Viva	PhD Thesis Title [Thesis supervisor(s)]
20	1501101001	CSE	Chandan Gautam	18 May 20	Kernel-based Learning in the Absence of Counterexamples: One-class Classification (Dr. Aruna Tiwari)
21	1501101002	CSE	G. Iyyakutti Iyappan	18 May 20	3D Ear Based Human Recognition (Dr. Surya Prakash)
22	1501131013	Chemistry	Preeti Bhauriyal	18 May 20	Theoretical Insights into Cathode Designing and Working Mechanism in Aluminium Batteries (Dr. Biswarup Pathak)
23	1401202011	EE	Vijay Anand	20 May 20	High-resolution Fingerprint Recognition: Indexing, Feature Extraction, and Comparison (Dr. Vivek Kanhangad)
24	1501101006	CSE	Animesh Chaturvedi	20 May 20	System Evolution Analytics: Data Mining and Learning of Complex and Big Evolving System (Dr. Aruna Tiwari)
25	1501102009	EE	Md Arif Khan	21 May 20	Design and Fabrication of MgZnO/CdZnO Heterostructures for HFET Application (Dr. Shaibal Mukherjee, Prof. Abhinav Kranti and Dr. Ajay Agarwal [CEERI-Pilani])
26	1301271001	BSBE	Anshu Kumari	21 May 20	Free and Nanoencapsulated Indocyanine Green for Nearinfrared and Multiphoton Bioimaging (Dr. Sharad Gupta)
27	1401251005	Physics	Mithun Kumar Majee	21 May 20	Correlation of local crystal structure and physical properties of Multifunctional Oxides (Dr. Preeti A. Bhoje)
28	1501202004	EE	Nivedita Jaiswal	22 May 20	Design Optimization of Double Gate Junctionless Mosfet for Enhanced Short Channel Immunity (Prof. Abhinav Kranti)
29	1501171016	BSBE	Arun Kumar Verma	26 May 20	Structural insight of r(CG) motif and small molecule based therapeutic development for the expanded CG repeats associated neurological disorders (Dr. Amit Kumar)

Sl.	Roll No.	Discipline	Name	Date of PhD Viva	PhD Thesis Title [Thesis supervisor(s)]
30	1501181002	MEMS	Gargee Bhattacharyya	26 May 20	Computational Designing of Main Group Based Low Dimensional Ferromagnetic Half-Metallic Materials for Spintronics Applications (Dr. Biswarup Pathak Dr. Somaditya Sen)
31	1401131004	Chemistry	Chinky Binnani	27 May 20	Development of Ruthenium Based Catalytic Systems for C-H Bond Activation/Arylation of Aryl Pyridines (Dr. Sanjay K. Singh)
32	1501202007	EE	Vinay Bankey	27 May 20	Performance Analysis of Hybrid Satellite-Terrestrial Networks over Generalized Fading Channels (Dr. Prabhat Kumar Upadhyay)
33	11120102	CSE	Dheeraj Rane	28 May 20	SLA Driven Performance Optimization in Cloud Computing (Dr. Abhishek Srivastava)
34	12110104	CSE	Mane Pramod Chandrawadan	28 May 20	Game Theoretic Models in Social Cloud (Dr. Kapil Ahuja Prof. Nagarajan Krishnamurthy (IIM Indore))
35	1401203004	ME	Dharmendra Kumar Panchariya	28 May 20	Synthesis and Characterisation of Metal-Organic Frameworks Based Hydrogen Storage Materials (Dr. Sanjay K. Singh Dr. E. Anil Kumar (IIT Tirupati))
36	1401251009	Physics	Sayan Chaudhuri	28 May 20	Realization of half-metallicity in disorder controlled Full Heusler compound Fe ₂ TiSn (Dr. Preeti A. Bhoje)
37	1501102017	EE	Jitesh Agrawal	28 May 20	Investigations on Hydrothermally Grown ZnO Nanostructures Towards Development of UV/Broadband Photodetectors (Dr. Vipul Singh Dr. I. A. Palani)
38	1401203005	ME	Nirgude Vishal Vasantao	29 May 20	Pool Boiling Heat Transfer Characteristics of Structured Surfaces (Dr. Santosh Kumar Sahu)
39	1401203007	ME	Saurabh Yadav	29 May 20	Heat Transfer and Fluid Flow Characteristics of Double Pipe Heat Exchanger with Passive Techniques (Dr. Santosh Kumar Sahu)

Sl.	Roll No.	Discipline	Name	Date of PhD Viva	PhD Thesis Title [Thesis supervisor(s)]
40	1401251003	Physics	Kushal Mazumder	29 May 20	Multifunctional Applications of Single Crystal and Nanomaterials of Topological Insulator Bi ₂ Se ₃ (Dr. Parasharam M. Shirage)
41	1301251002	Physics	Surjendu Bikash Dutta	30 May 20	Optical Spectroscopy Based Urine Analysis for Disease Diagnosis (Dr. Sharad Gupta and Dr. Shovan Kumar Majumder [RRCAT])
42	1401202010	EE	Suresh D.	10 Jun 20	Impact of Interfacial Effects, Process Variation and Heavy-Ion Irradiation on the Performance of Scalable Phase Change Memory Devices (Dr. Amod C. Umarikar and Dr. M. Anbarasu, IIT Madras)
43	1401251010	Physics	Siddhartha Karmakar	25 Jun 20	E _x 000B _{ective} Route Beyond the Extended Scalar Sectors of the Standard Model (Prof. Subhendu Rakshit)
44	1401281001	MEMS	Manojit Pusty	30 Jun 20	Mechanical Energy Harvesting Using Reduced Graphene Oxide Based Nanocomposites (Dr. Parasharam M. Shirage Dr. Somaditya Sen)
45	1501271002	BSBE	Richa Agrawal	3 Jul 20	Structural features of C15 and M1 peptidases for recognizing their peptide substrates (Dr. Amit Kumar Dr. Ravindra D. Makde, RRCAT)
46	1401231002	Chemistry	Anubha Yadav	10 Jul 20	Development of Catalytic One-Pot Approaches to Heterocycle Fused Coumarins, 2-Oxindoles and Carbocyclic Scaffolds (Dr. Sampak Samanta)
47	1501102003	EE	Shishir Maheshwari	13 Jul 20	Advanced Image Analysis Techniques for Automated Glaucoma Diagnosis using Retinal Fundus Images (Dr. Vivek Kanhangad Prof. Ram Bilas Pachori)
48	1401203003	ME	Chaudhari Vasudev Damodhar	20 Jul 20	Spray Characterization and Reactivity Study for Low Temperature Combustion Engine (Dr. Devendra Deshmukh)

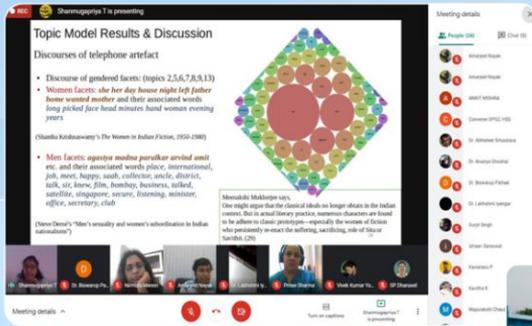
Sl.	Roll No.	Discipline	Name	Date of PhD Viva	PhD Thesis Title [Thesis supervisor(s)]
49	1401103001	ME	Anand Petare	1 Aug 20	Investigations on Finishing of Spur and Straight Bevel Gears by Abrasive Flow Finishing Process (Prof. N.K. Jain and Dr. I. A. Palani)
50	1501161005	HSS	Shanmugapriya T	1 Aug 20	The Impact of Technological Devices and Digital Technologies In/On Post-Independence Indian English Literature: Narrative, Publishing and Praxis (Dr. Nirmala Menon)
51	1401271002	Physics	Pramod Sukhadev Shinde	4 Aug 20	Analysis of Genomic and Proteomic Networks (Prof. Sarika Jalan)
52	1501102012	Electrical Engin.	Ritesh Bhardwaj	5 Aug 20	Development of MgZnO/ZnO Based Ultraviolet Photodetectors (Dr. Shaibal Mukherjee)

Student Enrolments and Graduation

Courses Offered	:	842
Undergraduate Courses	:	400
Postgraduate Courses	:	332
Cross Listed Courses	:	110

Enrolments								
Academic Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Doctoral Students Admitted								
PhD (Including Dual Degree)	87	93	118	83	117	89	189	63
Post Graduate Students Admitted								
MTech	5	24	30	31	34	62	41	77
MSc	15	20	24	47	56	69	80	102
MS (Research)	-	-	-	-	-	7	21	24
Under Graduate Students Admitted								
BTech	119	117	111	258	249	265	283	Awaited
Preparatory Course	-	-	-	-	-	-	4	

Graduation								
Convocation Year	2013	2014	2015	2016	2017	2018	2019	2020
Doctoral Students Graduated								
PhD	-	6	23	24	38	67	83	52
Post Graduate Students Graduated								
MTech	-	-	5	22	25	26	29	57
MSc	-	-	14	20	22	41	55	58
Under Graduate Students Graduated								
BTech	101	117	114	108	118	112	108	233



भारतीय प्रौद्योगिकी संस्थान इन्दौर
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